MK-20 SERIES

Model MK 20 Series
Owner's Manual Parts List &
Operating Instructions

CONCRETE SAWS
20 SERIES MODELS
2013 HSP, 2013 HE,
2020 HSP

MK®

CAUTION:

Read Safety And General Instructions Carefully Before Using Saw For The First Time.

SERIAL NUMBER

You should record the serial number of your saw on this owner's manual and on the warranty card, which must be sent in to be effective. Be sure to include all pertinent information required.

Part No. 156777
Revision 09/06

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General Safety Instructions

For your safety!

These safety precautions should be followed at all times. Failure to follow these safety precautions could result in injury to yourself and others.

This manual has been prepared to provide complete instructions for operation and maintenance of the MK-20 Series concrete saw. For additional instruction concerning engine operations and care refer to the engine manufacturers instructions. ***Before using this equipment, ensure that the person operating this machine has read and understands all instructions in this manual.*** Precaution is the best insurance against accidents. Read and observe all safety precautions.

safety messages

A safety message informs you about potential hazards that could hurt you or others. Each safety message is preceded by one of the three words: Danger, Warning, or Caution.

Warning

You CAN be KILLED or SERIOUSLY injured if you don't follow instructions.

Caution

You CAN be injured if you don't follow instructions.

Additional information as to the nature of the hazard is provided by the following hazards symbols which appear throughout the manual in conjunction with safety message alert symbols.

hazard symbols

Read Owner's Manual Before Use!

Before using this equipment, ensure that the person operating this machine has read and understands all of the instructions in the manual. Precaution is the best insurance against accidents. Read and understand all safety precautions, messages, warnings and hazard symbols. You are responsible for your own safety.

Adhere to safety guidelines: ANSI American National Standards Institute, OHSA, or local Regulations. Never operate the saw with out the guards in place!

Over Speed!

Never tamper with the governor components or settings to increase the maximum speed. Severe personal injury and damage to the engine or equipment can result if operated at speeds above maximum.

Explosive Fuel!

Gasoline is extremely flammable and its vapors can explode if ignited. Store gasoline only in approved containers, in well-ventilated, unoccupied buildings, away from sparks or flames. Do not fill the fuel tank while the engine is hot or running, since spilled fuel could ignite if it comes in contact with hot parts or sparks from ignition. Do not start the engine near spilled fuel. Never use gasoline as a cleaning agent.

Electrical Shock!

Never touch electrical wires or components while the engine is running. They can be sources of electrical shock which could cause severe injury or burns.

Hot Parts!

Engine components can get extremely hot from operation. To prevent severe burns, do not touch these areas while the engine is running or immediately after it is turned off. Never operate the engine with heat shields or guards removed.

Accidental Starts!

Before servicing the engine or equipment, always remove the key and disconnect the spark plug lead to prevent the engine from starting accidentally. Ground the lead to prevent sparks that could cause fires. Make sure the equipment is in neutral.

Rotating Parts!

Keep hands, feet, hair, and clothing away from all moving parts to prevent injury. Never operate the engine with covers, shrouds, or guards removed.

Lethal Exhaust Gases!

Engine exhaust gases contain poisonous carbon monoxide. Carbon monoxide is odorless, colorless, and can cause death if inhaled. Avoid inhaling exhaust fumes, and never run the engine in a closed building or confined area.

Use Approved Eye Protection!

Always use approved eye protection with side shields or face shields.

Respiratory Protection!

Always use approved respiratory protection.

Hearing Protection!

Always use approved hearing protection.

damage prevention messages

Other important messages that are designed to help prevent damage to your MK-20 Series concrete saw, other property, or the environment are preceded by the word notice.

notice

Your MK-20 Series concrete saw or other property could be damaged if you don't follow instructions.

safety label locations

Safety labels are located according to the chart below and the parts list starting on page 15. The labels contain important safety information. Please read them carefully. These labels are considered a permanent part of your saw. If a label comes off or becomes hard to read, contact MK or your dealer for replacement.

Item	Location	Description	Part #
C6	Top of Belt Guard	Spark Plug Caution Label	155579
C7	Front of Belt Guard	Belt Tension Caution Label	155583
C8	Top of Shaft & Belt Guard	Guards in Place Caution Label	155587
D15	Top of Blade Guard	Lift Guard Caution Label	155586
G13	Top of Console Tower	Central Control Panel	156749
G14	Back of Console Tower	Water On/Off	154404
G15	Back of Console Tower	Engage	154405
G16	Back of Console Tower	Disengage	154406
G17	Back of Console Tower	Engine Stop	156601
L19	Top of Gas Tank	Hot Surface Caution Label	155578
L20	Top of Gas Tank	Refueling Warning Label	155580
L21	Front of Gas Tank	California Danger Label	155581
L22	Top of Gas Tank	Lethal Exhaust Danger Label	155582
M7	Front Edge of Frame	Hands and Feet Caution Label	155585
O4	Center of Handlebar	Handle Lifting Warning Label	156627

MK-20 Series Concrete Saw

Saw Features

The MK-20 Series Concrete Saw is designed for wet or dry, high production flat and general industrial application sawing. The heavy duty steel, one piece box frame is precision jig welded and reinforced. This precisely reinforced steel construction with balanced weight distribution and ergonomic handlebars assures straight and accurate cutting as well as ease of operations preventing fatigue. The 4-cycle air cooled engine is located for easy access and maintenance. Each solid rubber wheel is mounted on an axle for years of reliable use. The rear axle is rigid, while the front axle pivots causing the blade to be lowered to the desired cutting depth. The positive screw feed provides precision control of the raising and lowering of the blade. The positive screw feed control wheel and all controls are located for easy access and visibility. The following table shows the available models and the features that differentiate them.

Engine

The MK-2013HSP features a Honda ™ GX390 13 hp engine. The MK-2013HE features a Honda GX390 with electric start. The MK-2020 HSP features a Honda™ GX620 20 hp engine with electric start and key ignition switch and 16" blade guard.

Model	Engine/Blade Capacity	Additional Features
MK-2013 HSP	Honda GX390 13 hp 16" blade guard	cyclone air filter, tach/ hourmeter
MK-2013 HE	Honda GX390 13 hp 16" blade guard	electric starter, tach/ hourmeter, centrifugal water pump (optional)
MK-2020 HSP	Honda GX620 20 hp 20" blade guard	electric starter, tach/ hourmeter, centrifugal water pump (optional)

blade drive system

The blade drive shaft pulleys are connected to both the engine and to the frame mounted blade shaft. Matched v-belts are connected to the pulleys providing engine power to the blade shaft. The one (1) inch diameter blade shaft is supported by two self-aligning pillow block bearings. The uniquely designed right and left blade shaft allows for cutting within two (2) inches of any wall.

tach/ Hourmeter MK-20 Series

A digital readout tach/hourmeter is factory installed on all MK-20 Series models. When the engine is running, the display will indicate the engines RPM. When the engine is shut off, the display will switch to run time, initially in minutes, and then switching to hours after the first hour of operation.

water system

The water system of this saw provides water to both sides of the saw blade from inside the blade guard. The saw includes a hose bib hookup and water flow control valve.

Unpacking, Assembly and Preparation

Your MK-20 Series has been shipped from the factory fully assembled and requires only minimal service to insure proper machine preparation prior to use. The following instructions should be followed closely. Carefully remove carton, packing materials and the MK-20 Series from the pallet. The saw has been thoroughly inspected and test operated before shipping and should not require any additional adjustments prior to use. Check each item with the illustration making certain all items are accounted for and in good visual condition before discarding any packing materials. If there are any missing or damaged parts, call customer service on our toll free number: **1-(800) 421-2222** for instructions before proceeding further. **CONTENTS OF CARTON:** saw, wrench, engine manual, warranty card, owners manual.

Warning

For your own safety, never start engine until all assembly steps are complete. Read and familiarize yourself with all controls and features of this saw as shown in the illustration before beginning operations. (Descriptions and illustrations are as accurate as possible at the time of publication. Illustrations may include optional equipment or accessories and may not show all models covered by this literature). The handlebar and pointer assemblies are shipped in the carton without attachment to the main saw frame. Upon removal of the saw from the carton and pallet, the handlebars should be placed in their correct mounting tube positions attached to the rear of the MK-20 Series main frame. Fasteners (3/8-16 bolts, washers, and nuts) have been placed in the plastic owners tube attached to the saw with the manual. Remove these fasteners and use them to attach the handlebar and pointer assembly to the main frame as indicated in the exploded drawing.

Initial Servicing

The engine must be thoroughly lubricated, and filled with fuel prior to break-in or use. Refer to manufactures instructions for details of service for the engine. The section on Maintenance in this manual describes the required periodic maintenance required under normal use.

engine preparation

notice

add oil

The engine may be shipped with oil in the crank case. Check crankcase dipstick. To fill the crankcase with oil, place the engine level. In order for this to be accomplished the blade must not be installed, and the depth adjustment must be down (until the engine is level). Refer to the manufacturers instructions for details on the type and amount of oil required. Since the proper amount of oil is important for safe operation, check the oil level of the engine each time you put fuel in the gas tank. Remember that the engine and oil must be warm and your saw must be on level ground to get an accurate reading.

add fuel

The engine is designed to operate on regular grade unleaded gasoline only. Adding fuel to the tank should be accomplished only when the engine is stopped and cool. Care should be taken to prevent spilling fuel over any part of the console or engine.

Warning

In the event of a fuel spill do not attempt to start the engine until the spilled fuel has been wiped up and the area is completely dry. When filling the fuel tank do not overfill. Always leave enough area for expansion due to environmental heating.

Battery Preparation

The 12 volt battery is shipped wet and charged. Connect the battery leads accourding to the following steps to ensure that power is provided to the engines electric starter.
1. Remove the front tower panel (item L17 or LA25) to obtain access to the batery terminals.
2. Connect the positive (+) battery cable to the Positive battery terminal. Tighten the cap screw and nut securely to assure proper electrical contact.

Warning

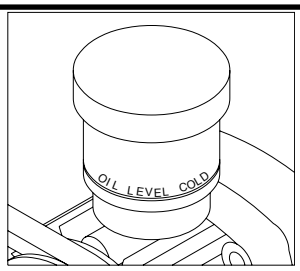
When tightening the positive (+) battery cable end, do not contact the Negative (-) battery terminal with the wrench or other metallic objects. This could cause an electrical short and electrical sparking or an explosion of the battery. Be careful not to connect the battery in reverse polarity, as this will short circuit the battery charging system causing the fuse on the engine to become damaged, and also possibly resulting in an explosion of the battery.

3. Connect the Negative (-) battery cable end to the negative (-) terminal. Tighten the cap screw and nut securely to assure proper electrical contact.

notice

4. Electric power is now available for engine starting. Replace the front tower panel securely.

hydrostatic transmission

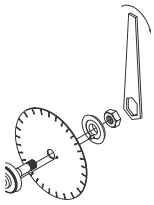


The Hydro-Static Transmission is factory filled with fluid having a viscosity equivalent to SAE 20 W 20. Check the oil level on the expansion tank to ensure that the transmission has adequate fluid.

notice

Do not overfill the expansion tank. Notice that the full level line is near the bottom of the expansion tank. Over filling will result in rupturing the seals on the hydromatic transmission and subsequent mechanical damage.

mounting the blade



When mounting the blade, locate the direction arrow on the blade and install the blade in the proper orientation. The blade rotates clockwise when viewed from the right side of the saw.

The blade must be properly fitted over the blade shaft and drive pin. The drive pin must project through the hole in the blade and into the flange for proper performance. When tightening the blade shaft nut against the outside of the flange, tighten securely. Blade shaft threads are left-hand on the right side of the saw, and right-hand on the left of the saw.

WARNING

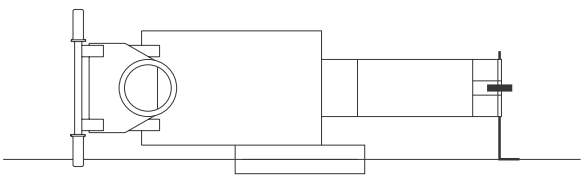
DO NOT operate without the proper blade guard covering the blade! **DO NOT** operate the saw with the front of the blade guard raised. Ensure that blade exposure does not exceed 180 degrees during operation.

When installing the blade insure that the blade shaft and flanges are free of dirt and all foreign material before mounting blade on the arbor shaft. Tightening the blade against a uneven surface can cause fracture of an abrasive blade or cause the blade to run out of alignment, which will result in excessive blade wear. Before mounting the blade on the arbor shaft, check to be sure the shaft is not damaged and the threads are clear of dirt and residue.

front pointer alignment

The front pointer is set in line at the factory. However, the pointer should be checked for proper alignment with the blade after every use. The following are the procedures for aligning the pointer with the blade, with the engine shut off.

1. Using a straight edge, carefully mark a line 12 feet long on a smooth level concrete surface.
2. Place saw parallel to line. Lower blade and center it over the line.
3. With the blade centered over the line and the saw frame parallel to the line, lower the front pointer assembly and position the pointer over the line.
4. Finally, roll the saw along the entire length of the line. The saw should lead off no more than 6 inches to the left in 12 feet of forward travel. Adjust the pointer in or out if the lead-off is outside this parameter.



Sawing Operations

This section of the manual describes the operating procedures, and safety precautions for proper use of this concrete saw. This saw is intended for industrial applications by experienced operators. It is to be operated in conformance with applicable federal, state and local codes or regulations pertaining to safety, air pollution, noise, etc.

Warning

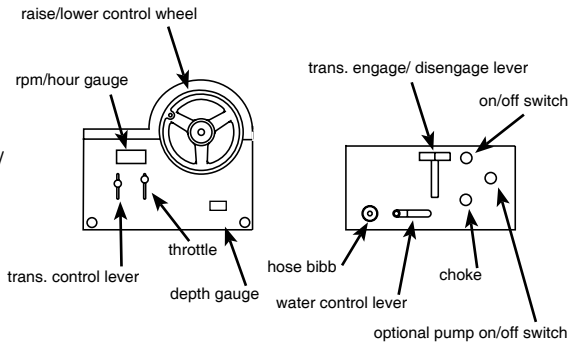
Improper use of this equipment, or improper machine alterations may be dangerous.

It is the operators responsibility to use this machine under safe working conditions and to be fully aware of requirements for operator safety. The operator must be aware of the machine's capabilities and limitations and follow the safety precautions in each section of this manual.

description of controls

All controls for saw operation are located on the console.

- The raise lever wheel raises the blade when rotated clockwise, and lowers the blade when rotated counterclockwise.
- The raise/lower wheel lock is engaged when the knob on the right side of the console is tightened.
- The throttle control increases engine rpm from slow (idle) at the bottom, to fast (full rpm) at the top.
- The forward/reverse speed control gradually increases the saw travel speed (up for forward, down for reverse) when moved from the central neutral position. Always place this control in neutral before using the engage/ disengage lever or starting or stopping the engine.
- The transmission engage/disengage lever is engaged in the full down position.
- The keyed ignition switch turns clockwise to the on and start positions. The engine turns over with the switch in the start position. Release the key after the engine starts.



determination of sawing hazards

Warning

Prior to operation of this machine the operator must determine the existence and location of any subsurface features which may be hazardous or could damage the equipment (i.e. electric cable, natural gas line, etc.).

operation in enclosed areas

Warning

The operator is cautioned not to use this equipment within enclosed spaces. Exhaust from the engine in an enclosed space can cause serious illness and possibly death. Ensure that the space is adequately ventilated.

engine starting procedures

Refer to the engine operating manual for proper engine operation. **Special precautions should be taken during the break-in period as specified by the Engine Manual.**

pre start checklist MK-2013 Series

- Check engine oil level. Add oil if low. (See adding oil under Initial servicing section on page 4).
- Check fuel level. Add fuel if low.
- Check cooling air intake and external surfaces of engine. Make sure they are clean and unobstructed.
- Check that the air cleaner components and all shrouds, equipment covers, and guards are in place and securely fastened.
- Choke engine as required for cold starting.
- Move kill switch to the on position. Grasp handle of pull start rope, and pull it out a few inches until it engages. Once pull start is engaged, pull firmly to spin engine. Once engine starts push choke control in. Allow engine to warm up for a few minutes at half throttle. All sawing is done at the correct throttle setting (see the blade speed and throttle setting table).
- To stop engine, move throttle to slow position, turn kill switch to the **OFF** position and wait for all engine movement to stop.

  DO NOT TURN OFF WHILE AT FULL THROTTLE!

pre start checklist MK-2020

- Check engine oil level. Add oil if low. (See adding oil under Initial servicing section on page 5).
- Check fuel level. Add fuel if low.
- Check cooling air intake and external surfaces of engine. Make sure they are clean and unobstructed.
- Check that the air cleaner components and all shrouds, equipment covers, and guards are in place and securely fastened.
- Check that the transmission is disengaged and in neutral. The transmission lever must be exactly in neutral to prevent resistance which could keep the transmission from starting.
- Pull choke: choke engine as required for cold starting.
- Turn ignition switch to start. Once engine starts push choke control in. Allow engine to warm up for a few minutes at half throttle. All sawing is done at the correct throttle setting (see the blade speed and throttle setting table.)
- To stop engine, move throttle to slow position, turn key switch to the **OFF** position and wait for all engine movement to stop.

DO NOT TURN OFF WHILE AT FULL THROTTLE!

maneuvering the saw

notice Raise the blade as high as possible when maneuvering so that the blade will not strike the pavement.

Warning

The blade is spinning whenever the saw is running.

Raise the blade as high as possible when maneuvering so that the blade will not strike the pavement.

The speed control lever for the hydrostatic transmission is adjusted at the factory to provide approximately 40 ft/min maximum in forward and 20 ft/min maximum in reverse with the engine running at full throttle. When maneuvering, the engine needs to be at one-half throttle or more so that the hydrostatic transmission can operate efficiently.

When the **TRANSMISSION LEVER** is in **NEUTRAL** and the **DRIVE DISENGAGE LEVER** is in the **ENGAGE** position, the transmission is in **NEUTRAL** and the wheels are locked.

To engage the transmission push the engaging lever down on the right rear of the console cowling. To disengage the transmission pull the engaging lever up. When the saw is manually pushed, the transmission must be disengaged. The transmission speed control lever is located on the top of the console. This lever controls the variable forward and reverse ground speed (up to 40 feet per minute) of the saw.

Warning

When engaging the transmission, with the engaging lever, be sure the speed control lever is at the neutral position to avoid saw movement.

wet cutting

The water used on the blade is to provide coolant during cutting, and to flush the concrete cutting from the cut.

The water hose bibb is located below the throttle control on the left side of the saw. After connecting the water supply, turn on the water at the source and use water valve on console to control flow of water to blade. Be sure that both sides of the blade are getting adequate flow of water. The water control adjustment allows the operator to manually control the flow of water to the blade during all operations.

dry cutting

Dry cutting blades have been specially designed for use with concrete saws. Ensure that the blade you are using is clearly marked for dry cutting.

notice When dry cutting, it is important to keep the air filter clean. Check the condition of the filter at least every four (4) hours of operation. Clean the pre-filter (wash in soapy water and re-oil) and change the paper filter as soon as it becomes clogged. Concrete dust is very abrasive, and will quickly damage internal engine parts, causing loss of compression and eventual engine failure.

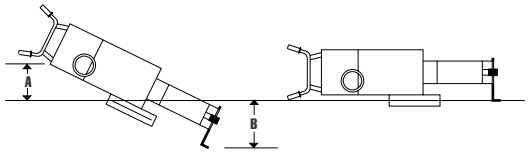
Saw only as deep as the specifications and job conditions require. Remember airflow helps to cool the blade during dry cutting. Cutting too deep with one pass, or exerting excessive forward or side pressure can be dangerous. Step cut in increments of 2 inches (50 mm) or less, for the best results.

If reinforced abrasive blades are used for cured concrete it is usually better to saw only 1” deep per pass if deeper cuts are required, cut in multiple passes.

Thinner Diamond Blades are especially advantageous when cutting dry.

aligning the saw with a marked line

Refer to the figure below. Push the saw forward and approach the marked line at an angle. Stop when the distance from the rear edge of the saw frame to the line (distance A) and the distance from the pointer to the line (distance B) are approximately equal. Lift the rear wheels slightly off the ground by lifting on the handles and swing the rear of the saw around until the pointer is on the line and the saw frame is parallel to it. Do not tilt the saw too far forward to keep the blade from contacting the concrete. The saw should now be aligned with the marked line. Practice will fine tune this method. Critical to this method of alignment is to ensure that the saw pointer is properly aligned (see alignment procedures).



starting a cut

With the engine running at half-throttle. Open the water valve to full open. Check to verify that the water is flowing fully. Adjust the amount of water flowing on the blade to a desired amount.

After adjusting the flow of water increase to proper throttle setting. Lower the blade into the cut by slowly turning clockwise on the depth control wheel. If the water supply is interrupted, **stop cutting immediately.**

When the desired depth of cut is reached, lock the control wheel in position with the depth control locking knob. During cutting, do not exert excessive side pressure on the handle bars to attempt to steer the saw. Use only enough pressure to follow the original marked line.

Warning

If the saw should stall for any reason, raise the blade out of the cut before restarting the engine!

When lowering the blade into a partially made cut, the blade must be perfectly aligned within the cut before starting to saw again. **DO NOT** force the blade into the material by lowering the blade too fast.

sawing a straight line

The following items should be considered for best economy and efficiency in sawing:

With the water on, engine at the correct throttle setting, and the blade lowered, push the saw forward referring to the pointer alignment.

The saw has a natural tendency to pull towards the side on which the blade is mounted. To assure straight line cutting, apply pressure to the appropriate handle. If excessive pressure is required back off on the forward speed of the saw. If excessive pressure is still required to make the saw travel straight, the saw may need to have the arbor shaft adjusted.

Avoid sudden corrective actions when the saw deviates from the intended line of cutting. Sudden and severe corrections can cause the blade to be damaged or broken.

If the saw stalls in the cut, raise the blade out of the cut and check the blade shaft nut before restarting the engine.

Warning

Always raise the blade completely out of the cut before stopping the engine or turning off the water supply.

When sawing joints, be careful not to let the blade cut into the forms.

The forward speed of the saw, during cutting, should be regulated by the operator. Driving the saw too fast while cutting may cause the front wheels to lift causing the blade to cut at uneven depths.

The three controlling factors of cutting economy are:

1. Depth of cut
2. Forward speed of the saw (with the engine at proper throttle)
3. Blade cutting ability

Experimental adjustment of these items, with respect to the aggregate being cut will result in the best cutting economy.

As new blades wear, the cutting ability usually improves. It is best to start at a slow forward speed with a new Blade and work up to a desired cutting speed gradually.

finishing a cut

Raise the blade out of the cut by cranking the depth control wheel counter-clockwise. Raise the blade high enough out of the cut to clear the pavement and allow maneuvering of the saw.

Move the engine throttle to the slow position then turn the kill switch off.

Turn off the water valve.

cutting with the blade on the left side

Left side cutting can be easily accomplished by moving the blade guard to the left hand side of the saw belt guard using the following steps:

1. Turn kill switch to off position.

2. Disconnect water hose from blade guard.

3. Remove shaft guard, from the left side of the saw frame and set aside.

4. Remove blade guard from the right side of the saw frame and reassemble on the left side of the saw belt guard.

5. Reassemble shaft guard on the right side of the saw frame.

6. Connect water hose to blade guard.

When attaching a blade to the left blade shaft, use the outside flange from the right side and the left side nut.

Warning

Do not operate saw with any guards removed. Turn kill switch to off position to avoid accidental starts when removing guards.

blade speed and throttle setting

Since diamond blades cut best at specific rim-speeds, blades of different diameters must be turned at different blade shaft rpm's.

The MK-2013 will run either a 14 or 16" blade and the MK-2020 HSP will run a 16" through 20" blade.

Safe, efficient, economical cutting performance will occur at the engine rpm (as read on the tachometer) stipulated on the following chart.

blade diameter	set engine rpm to
14"	full throttle (3500)
16"	3200-full throttle
18"	2850-3300
20"	2550-3000

The MK-20 Series engine shaft to blade shaft ratio is 1:.895.

Warning

Operating saw blades at rotational speeds greater than those recommended by the manufacturer can cause blade damage and possibly subsequent personal injury.

Never exceed 3600 rpm blade shaft speed.

* The MK-20 Series, it is possible to cause overspeeding of the blade at throttle settings above those stipulated on the above chart; **DO NOT EXCEED THESE ENGINE RPM SETTINGS!**

Maintenance

Periodic maintenance including cleaning, lubrication, tensioning of drive belts, and inspection for wear and damage are routine servicing procedures. Following the procedures as outlined in the following table can prevent serious damage or malfunctioning of the machine and aid in preserving the useful life of saw blades.

Warning

Before servicing the saw or engine, always turn the kill switch to the off position.

Item performed at every indicated hours or interval period whichever goes first.	Maintenance Schedule			
	MAINTENANCE OPERATION	EVERY 8 HOURS OR DAILY	25 HOURS OR WEEKLY	100 HOURS OR SEASONAL
Air Filter	CHECK	EVERY 4 HOURS WHEN DRY CUTTING ●		
		WHEN DRY CUTTING ●		
	CHANGE AIR FILTER			●
Hydrostatic Transmission reservoir	CHECK OIL	●		
Mainframe	BLADE SHAFT BEARINGS	LUBE BLADE SHAFT BEARINGS AT END OF OPERATIONS ●		
	PIVOT BEARINGS		●	
	CHAIN DRIVE	●		ADJUST TENSION ●
	TRANSMISSION CONTROL ASSEMBLIES		●	
	BATTERY		●	
	V-BELTS		●	REPLACE ●
Battery	CHECK WATER LEVEL		●	
Engine	DEFINITIVE INFORMATION ON ENGINE MAINTENANCE IS CONTAINED IN THE OR HONDA ENGINE MANUAL PROVIDED SEPARATELY. PERFORM ALL MAINTENANCE PROCEDURES AS RECOMMENDED BY THE ENGINE MANUAL.			

Warning

Shut off the engine before performing any maintenance. If the engine must be run after a maintenance operation make sure the area is well ventilated. The exhaust contains poisonous carbon monoxide gas! Exposure can cause loss of consciousness and may result in death.

cleaning

Clean the machine daily being careful to remove cutting dust and slurry from the blade guard engine cooling fan and air ducts. Failure to perform this operation may prevent smooth control of the saw. Steam cleaning is the preferred method of cleaning.

engine

Engine maintenance and adjustment is necessary to keep the saw in good operating condition. Maintenance operations include oil changes, filter changes, air cleaner, spark plug, fuel filter, etc. Perform all maintenance procedures as recommended by the Honda Engine Manual provided separately.

For a new engine, it is especially important to change the oil after the first 5 hours of operation. Thereafter, change the oil after every 100 hours of operation as per the engine manufacturers manual.

Note: Always dispose of used engine oil and filters in a responsible manner. Follow your community's standards for disposing of these items. Call your local recycling center to find out about recycling engine oil.

grease points

There are four (4) grease points (zerk fittings) on the MK20 Series concrete saw.
The blade shaft bearing grease points need to be serviced at the end of operations on a daily basis. The rest of the grease points require service on a weekly basis (see maintenance schedule).
The two blade shaft grease points are accessed from underneath by tilting the saw back. The raise/lower adjustment tube grease point is accessed from the inside of tower control box. The transmission drive spline shaft bearings are accessed from the inside of tower control box and by raising the front of the saw to access from underneath the frame. See parts lists for grease point locations.

controls

Stiff or sluggish response of controls must be corrected immediately. Periodically clean and lubricate the throttle cable, the throttle and choke controls. The frequency of this maintenance will depend on the utilization rate and the amount of dust. After performing any maintenance on controls, saw responsiveness must be checked before the initiation of sawing operations.

hydrostatic transmission

The hydrostatic transmission should not normally require maintenance. However, the hydraulic oil level in the reservoir and the cooling fan blade must be checked frequently.

drive chain

Chain tension is adjusted by loosening the four transmission bracket mounting bolts and moving the transmission up or down as required. All nuts must be retightened after each adjustment. Excessive tension on the drive chains will reduce chain life and should be avoided. Periodically wipe the chain clean and relubricate with penetrating chain lubricant.

⚠ Caution

Breakage of the drive chain will result in the loss of braking friction through the drive wheels. Perform daily checks of the drive chain. If any damage is noted the chain must be replaced.

friction drive wheels adjustment

If the friction drive wheels DO NOT engage the rear wheels with sufficient pressure, slippage of the rear wheels may occur. To correct this situation, lengthen the engagement linkage by loosening the two (2) linkage adjustment bolts. Lengthen the linkage bars a small amount and retighten the bolts.

neutral adjustment

If, due to transmission control cable or other component replacement, the transmission control system needs to be adjusted to obtain **NEUTRAL** the following procedure must be followed:

1. Stop the engine and Place Drive Disengage Lever in Disengage position.
2. Remove the belt guard. Loosen the engine mounting bolts, remove the v-belts and slide the engine as far forward as possible (approximately 2”).
3. Loosen cable clamp on transmission control arm.
4. Place Transmission Speed Control lever in neutral.
5. Place the transmission in neutral by moving the transmission control arm back and forth while manually rotating the transmission pulley. When the pulley spins freely and no movement of the drive chain is observed, the neutral position has been obtained.
6. Tighten the cable clamp.
7. Replace the v-belts and properly adjust v-belt tension by repositioning engine and tightening the mounting bolts.
8. Reinstall the belt guard.

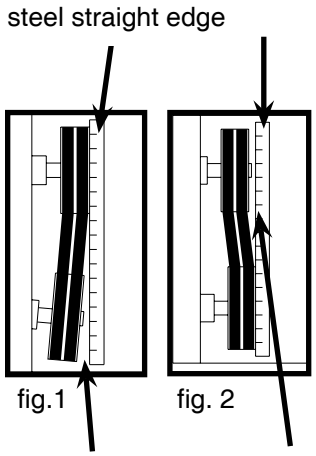
v-belts

This machine is equipped with two heavy duty V-belts which are tensioned properly at the factory. These must be re-tensioned after the first half day of operation and periodically thereafter. Adjust to the original tension as set at the factory, which is approximately 1/4 inch of defection of the center of the belt halfway between the pulley on the motor and the pulley on the blade shaft.

To adjust belt tension, first remove the belt guard. With the belt guard removed, loosen motor mount bolts. Loosen the lock nut and adjust set bolt on the motor tension adjuster until the required belt tension is achieved.
Retighten the motor mounting bolts.

FIGURE ONE
FIGURE TWO

The two most common causes of misalignment are shown in the drawings.
a). the engine drive shaft and the blade shaft are not parallel.
b). the pulleys are not located properly on the shafts.



Note: gap between steel straight edge and sheave

Never make adjustments to belts or pulleys while engine is running.

Caution

DO NOT OVER TENSION as damage to belts and bearings may occur. Belts that are too loose may slip, resulting in short life and loss of power to the blade shaft. If any belts are worn or damaged, replace the complete set.
The motor mounting plate must be maintained parallel to the frame. Make sure all lock nuts are tightened and retighten the bracket bolts.
See parts list for further v- belt spec. information.

notice

electrical system

A fuse protects the battery charging circuit. The fuse and the battery are the only user serviceable parts of the electrical system. a short circuit or a battery connected in reverse polarity will blow the fuse. Refer to the Honda engine manual for the location and type of fuse. The fuse on the Honda engine is located between the starter solenoid and the engine, and is rated at 30 amps.

Caution

If the fuse blows, determine the cause of the problem before resuming operations.

battery

Check water level weekly. Add distilled water if necessary. Check terminal cables and remove any deposits. Remove the battery for recharging and follow the instructions for recharging. Damage can result to the battery and electrical system if the battery is charged or installed in reverse polarity. Make sure that the negative terminal is connected to ground.
Remove and install battery as per instructions in initial servicing section of this manual. Be careful not to contact metal while loosening positive terminal with tools.

Caution

Observe all battery precautions as outlined in the Initial Servicing section of this manual.

depth control

The depth control (raising screw) consists of a threaded rod which feeds into a steel nut. In order to keep the two parts working smoothly it is necessary to keep the rod free from dirt and sludge as much as possible. Cleaning the threaded rod with a rag after each use will prevent sludge from collecting in the tube assembly and protect the threads. It is a good practice to keep the raising screw threads lubricated, as the slurry generated during cutting will cause premature thread wear.

water system

Check and clean system periodically. Make sure all outlets in the blade guard spray bars are open. Clean if necessary. When storing saw under freezing conditions it is recommended that the water lines be drained to prevent damage.

Troubleshooting

When trouble occurs, Be sure to check the simple causes which, at first, may seem too obvious to be considered. Refer to the table below for problems and their possible causes.

	Cause / Problem	Loose Transmission Linkage	Oil Level	Cooling Fan	Water in Oil Reservoir	Dirty Cooling Fans	Loose Drive Chain
Transmission	Transmission Jerky when starting	X	X				X
	Transmission operates in one direction	X					
	Transmission Operating Hot	X	X	X		X	
	Oil color is black			X		X	
	Oil color is milky				X		

	Cause / Problem	No Fuel	Improper Fuel	Dirt in Fuel Line	Fuse Burned Out	Incorrect Oil Level	Dirty Air Filter	Faulty Spark Plugs
Engine	Will Not Start	X		X	X		X	X
	Hard Starting	X	X	X			X	X
	Stops Suddenly	X		X		X	X	
	Lacks Power		X	X		X	X	X
	Operates Erratically		X	X			X	X
	Knocks On Pings		X					X
	Skips or Misfires			X			X	X
	Back Fires			X			X	X
	Overheats			X			X	X
	High Fuel Consumption						X	X

	Cause / Problem	Improper Blade for the Application	Improper Belt Tension	Damage Caused by External Objects
Other	Reduced Blade Life	X	X	
	Excessive Belt Wear		X	X

Service Record

Date	Service Performed	Engine Hours

MK-2013 PARTS LIST

Parts List MK-2013

Item	Description	Qty	P/N
A	Accessories	-	-
A1	Tube, Owner's Manual (not shown)	1	155419
A2	Owner's Manual, MK 20-Series (not shown)	1	156777
A3	Wrench	1	137976
B	Belts	-	-
B1	V-Belt, AX-33	2	156598
B2	V-Belt, AX-43	1	156110
C	Belt Guard	-	-
C1	Guard, MK 20-Series Belt	1	159888
C2	Screw, 3/8-16 X 1 Hex Head Cap	2	152507
C3	Screw, 3/8-16 X 3/4 Hex Head Cap	1	153527
C4	Washer, 3/8 Split Lock	3	150925
C5	Washer, 3/8 SAE Flat	3	150923
C6	Label, Caution, Sparkplug, 1.5 X 3.0	1	155579
C7	Label, Caution, Belt Tension, 1.5 X 3.0	1	155583
C8	Label, Caution, Guards in Place, 1.5 X 3.0	1	155587
C9	Pin, 1/4 X 3/4 Roll (not shown)	1	n/a
D	Assembly, 16" Blade Guard, MK 20-Series	1	158817
D1	Guard, Blade, 16" Rear, MK 20-Series	1	156780
D2	Guard, Blade, 16" Front, MK 20-Series	1	151346
D3	Screw, 3/8-16 X 4 Hex Head Cap	1	153531
D4	Washer, 3/8 SAE Flat	2	150923
D5	Nut, 3/8-16 Centerlock Hex	1	153522
D6	Screw, 3/8-16 X 1 Hex Head Cap	4	152507
D7	Washer, 3/8 SAE Flat	4	150923
D8	Washer, 3/8 Split Lock	4	150925
D9	Fitting, Brass 1/8 MNPT X 3/8 BARB	1	152501
D10	Flap, Rubber Splash	1	150846
D11	Screw, 1/4-20 X 3/4 Hex Head Cap	2	152504
D12	Washer, 1/4 SAE Flat	4	151915
D13	Washer, 1/4 Split Lock	2	152591
D14	Nut, 1/4-20 Hex	2	151893
D15	Label, Caution, Lift Guard, 1.5 X 3.0	1	155586
D16	Label, Blade Failure Warning	1	155588
E	Assembly, 1-3/16 X 13HP Blade Shaft	1	156653
E1	Shaft, 1-3/16 Dia. Blade	1	156599
E2	Bearing, 1 3/16 ID Pillow Block	2	155622
E3	Screw, 7/16-14 X 1 1/2 Hex Head Cap	4	155155
E4	Washer, 1/2 SAE Flat	4	150924
E5	Washer, 7/16 SAE Flat	4	151050
E6	Washer, 7/16 Split Lock	4	151051
E7	Flange, Inner, 1" Bore	2	150731
E8	Key, #9 Woodruff	2	150794
E9	Key, 1/4 Square X 1-3/4	1	150796
E10	Pulley, 2A32B36TB1210	1	151963
E11	Bushing, 1210 X 1 3/16 Taper Lock	1	151964
E12	Nut, Blade Shaft, 1-14 Left Hand (gold)	1	138701
E13	Nut, Blade Shaft, 1-14 Right Hand (silver)	1	138693
E14	Assembly, Outer Flange	1	155451
G	Console Tower	-	-
G1	Panel, Right Hand Tower	1	156500
G2	Panel, Left Hand Tower	1	156501

Item	Description	Qty	P/N
G3	Panel, Tower Upper Back	1	156504
G4	Panel, Tower Lower Back	1	156505
G5	Panel, Control	1	156305
G6	Screw, 3/8-16 X 3/4 Hex Head Cap	4	153527
G7	Washer, 3/8 Split Lock	4	150925
G8	Washer, 3/8 SAE Flat	4	150923
G9	Screw, 1/4-20 X 1/2 Truss Head Phillips Cap	18	153880
G11	Screw, 1/4-20 X 1 1/2 Hex Head Cap	1	151914
G12	Nut, 1/4-20 Hex	3	151893
G13	Label, Control Panel	1	156749
G14	Label, Water On/Off	1	154404
G15	Label, Engage	1	154405
G16	Label, Disengage	1	154406
G17	Label, Engine On-Off-Start	1	156601
G21	Plug, 3/4 Flush Head Button (not shown)	1	156615
G22	Plug, 1/2 Flush Head Button (not shown)	1	156779
H	Depth Control	-	-
H1	Wheel, Depth Control	1	155156
H2	Screw, 3/8-16 X 1/2 Socket Head Set	1	153710
H3	Handle, Depth Control Wheel	1	156236
H4	Handgrip	1	150842
H5	Screw, 1/2 X 3/4 Socket Head Shoulder	1	156177
H6	Tube, Depth Control	1	155049
	a) Fitting, Grease	1	153852
H7	Nut, 3/8-16 Nylock Hex	1	152505
H8	Screw, 3/8-16 X 2 Hex Head Cap	1	153485
H9	Bearing, 3/4 ID Flange	1	155151
H10	Screw, 3/8-16 X 1 Socket Head Cap	2	156602
H11	Spacer, Depth Control (not shown)	1	155161
H12	Nut, 3/4-10 Hex	2	155063
H13	Screw, Depth Control	1	155062
H14	Label, Clipper, 1.75 Round (not shown)	1	n/a
I	Depth Indicator	-	-
I1	Clamp, Depth Indicator	1	156603
I2	Screw, 5/16-18 X 1 Hex Head Cap	1	151743
I3	Washer, 5/16 SAE Flat	1	151754
I4	Arm, Depth Indicator	1	156604
I5	Screw, 1/4-20 X 1/2 Pan Head Phillips Cap	2	155452
I6	Washer, 1/4 Split Lock	2	152591
I7	Spring, Depth Indicator	1	156605
I8	Screw, 8-32 X 1/2 Pan Head Phillips Cap	1	152517
I9	Washer, #8 SAE Flat	2	155454
I10	Nut, 8-32 Hex	1	153549
I11	Spool, 2-3/4 Depth Indicator	1	156606
I12	1/4-20 X 2 ¼ Hex Head Cap	1	156607
I13	Nut, 1/4-20 Hex	1	151893
I14	Bracket, Depth Indicator	1	156608
I15	Screw, 1/4-20 X 1 Flat Head Phillips Cap (not shown)	1	153894
I16	Washer, 1/4 SAE Flat	1	151915
J	Depth Lock	-	-
J1	Spring, Detent	1	156609
J2	Washer, 3/8 SAE Flat	1	150923
J3	Screw, 3/8-16 X 2 Socket Head Cap	1	153643
J4	Nut, 3/8-16 Nylock Hex	1	152505

MK-2013 PARTS LIST (cont...)

Item	Description	Qty	P/N
K	Engage/Disengage Lever	-	-
K1	Lever, Engage / Disengage	1	156610
K2	Arm, Drive Adjustment	2	154242
K3	Knob, 1/2-20 Ball	1	154486
K4	Screw, 3/8-16 X 1 1/2 Hex Head Cap	1	153528
K5	Screw, 3/8-16 X 2 1/4 Hex Head Cap	1	153529
K6	Nut, 3/8-16 Nylock Hex	2	152505
K7	Screw, 3/8-16 X 3/4 Hex Head Cap	2	153527
K8	Washer, 3/8 Split Lock	2	150925
K9	Washer, 3/8 SAE Flat	6	150923
K10	Pin, 3/8 X 1 1/4 Clevis, w/ Hairpin Cotter Pin	1	156611
L	Engines	-	-
L1	Engine, Honda GX390 13HP, w/ Cyclone Filter	1	155365
L8	Deflector, Honda 11/13HP (not shown)	1	155375
L9	Screw, 6-32 X 1/2 Pan Head Phillips Self-Tap Cap	3	153466
L10	Pulley, 3B34TB1210, Reverse Mount	1	155009
L11	Bushing, 1210 X 1 ID Taper Lock, w/ Int. Key	1	154431
L12	Nut, 3/8-16 Nylock Hex	4	152505
L13	Washer, 3/8 SAE Flat	4	150923
L14	Screw, 3/8-16 X 2 Hex Head Cap	4	153485
L15	Pin, Throttle Control	1	151284
L16	Screw, 8-32 X 3/8 Pan Head Cap	1	156614
L17	Pin, Cotter, 1/16 X 3/4	1	152518
L18	Plug, 3/4 Flush Head Button	1	156615
L19	Label, Caution, Hot Surface, 1.5 X 3.0	1	155578
L20	Label, Warning, Refueling, 1.5 X 3.0	1	155580
L21	Label, Danger, California, 1.5 X 3.0 (not shown)	1	155581
L22	Label, Danger, Lethal Exhaust, 1.5 X 3.0	1	155582
L23	Panel, Front Tower, MK	1	156502
L24	Oil Drain, M12 x 3/8 Push	1	157577-02
L25	Bracket, Honda Fuel Tank (not shown)	1	158570
L26	Nut, M8 Flange Hex (not shown)	2	156624
L27	Screw, M8 X 16 mm Hex Head Cap (not shown)	2	156625
M	Frame	-	-
M1	Frame	1	157092
M2	Mount, Engine	1	154237
M3	Screw, 1/2-13 X 1 3/4 Hex Head Cap	2	153853
M4	Screw, 1/2-13 X 1 1/4 Hex Head Cap	2	153532
M5	Washer, 1/2 SAE Flat	4	150924
M6	Bolt, 1/2-13 X 3 Hex Head Tap	1	153854
M7	Label, Caution, Hands and Feet, 2 X 4	1	155585
M8	Tag, Serial Number MK-20 Series (not shown)	1	156919
O	Handlebar	-	-
O1	Handlebar	1	156516
O2	Handgrip	2	150842
O3	Bolt, 3/8-16 X 1 1/2 Hex Head Tap	2	156656
O4	Label, Warning, Handle Lifting, .625 X 2.937 (not shown)	1	156627
P	Idler Arm	-	-
P1	Arm, Idler	1	154244
P2	Screw, 3/8-16 X 2 Hex Head Cap	2	153485
P3	Spacer, 3/4 OD X 3/8 ID X 1/2	1	156628
P4	Washer, 3/8 Split Lock	1	150925

Item	Description	Qty	P/N
P5	Washer, 3/8 SAE Flat	3	150923
P6	Pulley, Idler	1	153797
P7	Spring, Idler Pulley	1	153807
P8	Eyebolt, 1/4-20 X 3	1	153887
P9	Nut, 1/4-20 Hex	2	151893
Q	Lifting Bail	-	-
Q1	Bail, Lifting	1	156543
Q2	Screw, 1/2-13 X 1 1/4 Hex Head Cap	4	153532
Q3	Washer, 1/2 Split Lock	4	153524
Q4	Washer, 1/2 SAE Flat	8	150924
Q5	Nut, 1/2-13 Hex	4	151282
R	Pointer	-	-
R1	Arm, Pointer	1	156544
R2	Pointer	1	155057
R3	Wheel, Pointer, w/ 3/8 X 1/2 X 5/8 nylon bushing	1	155066
R4	Screw, 1/4-20 X 3/4 Thumb	1	150991
R5	Nut, 3/8-16 Nylock Hex	3	152505
R6	Washer, 3/8 SAE Flat	6	150923
R7	Screw, 3/8-16 X 2 1/2 Hex Head Cap (not shown)	1	156030
R8	Screw, 3/8-16 X 1 1/2 Hex Head Cap	2	153528
U	Rear Axle	-	-
U1	Shaft, 3/4 Dia. Axle	1	153873
U2	Wheel, Rear, 6 Dia. X 2	2	138529
U3	Collar, 3/4 Set	2	153814
U4	Washer, 3/4 SAE Flat	4	153523
U5	Screw, 5/16-18 X 3/4 Hex Head Cap	2	151369
U6	Washer, 5/16 Split Lock	2	151747
U7	Washer, 3/8 SAE Flat	2	150923
V	Shaft Guard	-	-
V1	Guard, Shaft	1	156307
V2	Screw, 3/8-16 X 1 Hex Head Cap	3	152507
V3	Washer, 3/8 Split Lock	3	150925
V4	Washer, 3/8 SAE Flat	3	150923
V5	Label, Caution, Guards in Place, 1.5X3.0	1	155587
W	Tach / Wire Harnesses	-	-
W1	Wire Harness, Honda Premium	1	156633
W2	Tach / Hourmeter w/ Connector	1	156631
W3	Screw, 8-32 X 1/2 Pan Head Phillips Self-Tapping Cap	2	156632
X	Throttle Cable	-	-
X1	Cable, Throttle, 13HP Honda	1	156640
X2	Throttle Head	1	155406
X3	Screw, 10-24 X 3/4, Pan Head Phillips, Self Tapping	2	156641
X4	Nut, 10-24 Clip	2	155407
Y	Transmission	-	-
Y1	Mount, Transmission	1	154230
Y2	Bracket, Transmission Control Cable	1	153862
Y3	Lever, Transmission Control	1	154238
Y4	Sprocket, #35-B12 X 17mm Bore	1	153811
Y5	Nut, 3/8-16 Nylock Hex	9	152505
Y6	Washer, 3/8 SAE Flat	17	150923

MK-2013 PARTS LIST (cont...)

Item	Description	Qty	P/N
Y7	Screw, 1/4-20 X 3/4 Hex Head Cap	2	152504
Y8	Washer, 1/4 Split Lock	2	152591
Y9	Washer, 1/4 SAE Flat	2	151915
Y10	Screw, 10-32 X 1/2 Pan Head Phillips Cap	1	151052
Y11	Washer, #10 Split Lock	1	153684
Y12	Washer, #10 SAE Flat	1	154369
Y13	Clamp, Transmission Control Cable	1	154383
Y14	Transmission, Hydrostatic	1	153783
Y15	Screw, 3/8-16 X 3 Hex Head Cap	4	153113
Y16	Pulley, 1-Groove, 6” Dia X 17mm Bore	1	156642
Y17	Screw, 10-24 X 1/2 Hex Head Cap	1	154172
Y18	Pin, Transmission Control	1	153842
Y19	Pin, 3/32 X 1 Cotter	1	153860
Y20	Shaft, Drive Wheel	1	153891
Y21	Roller Chain and Link	1	156309
Y22	Key, 3/16 X 3/16 x 1 1/8 Square	3	150344
Y23	Sprocket, #35BS48 X 3/4 Bore	1	153812
Y24	Bearing, Flange	2	152025
Y25	Fitting, Grease	2	153852
Y26	Screw, 3/8-16 X 1 1/4 Hex Head Cap	4	150774
Y27	Wheel, Splined Drive	2	153786
Y28	Screw, 1/2-13 X 1 1/4 Hex Head Cap	2	153532
Y29	Washer, 1/2 SAE Flat	2	150924
Y30	Spring, Extension	1	153957
Z	Transmission Control Cable	-	-
Z1	Cable, Transmission Control	1	156643
Z2	Throttle Head	1	155406
Z3	Screw, 10-24 X 3/4 Pan Head Phillips, Self Tapping	2	156641
Z4	Nut, 10-24 Clip	2	155407
AA	Truck	-	-
AA1	Truck	1	154231
AA2	Shaft, 3/4 Dia. Pivot	1	153873
AA3	Washer, 3/4 SAE Flat	4	153523
AA4	Washer, 3/4 Shim	~4	153699
AA5	Wheel, Front, 5 Dia. X 2	2	138537
AA6	Pin, 1/8 X 1 1/2 Cotter	2	153861
AA7	Screw, 5/16-18 X 3/4 Hex Head Cap	2	151369
AA8	Washer, 5/16 Split Lock	2	151747
AA9	Washer, 3/8 SAE Flat	2	150923
BB	Assembly, Water Tank	1	157852
BB1	Tank, Water	1	156644
BB2	Cap	1	156956
BB3	Valve, 3/8 MNPT x 3/8 FNPT Mini Ball	1	157898
BB4	Elbow, 3/8NPT Nylon Street	1	157895
BB5	Coupling, Quick Disconnect Socket X. 3/8 Tube	1	158079
BB6	Coupling, Quick Disconnect Plug X 3/8 Tube	1	158080
BB7	Tee, 3/8 Hose Barb, Brass	1	156646
BB8	Hose, 3/8 I.D. Vinyl	3’	150845
BB9	Clamp, 5/8 Hose	4	151198
BB10	Slider, Water Tank Strap	2	158095
BB11	Strap, Water Tank	1	158094
BB12	Instruction Sheet, Water Tank Installation (not shown)	1	157852-IS
CC	Assembly, Water Pump	1	158097

Item	Description	Qty	P/N
CC1	Pump, Electric Self Priming Centrifugal, 12V	1	156647
CC2	Fitting, 3/8 MNPT X 3/8 BARB, Brass	2	152076
CC3	Elbow, 3/8 MNPT 90 Street, Galvanized	1	152074
CC4	Fitting, 3/4 MNPT X 3/8 FNPT, Brass	2	156648
CC5	Screw, 1/4-20 X 1/2 Hex Head Cap	4	152608
CC6	Washer, 1/4 Split Lock	4	152591
CC7	Washer, 1/4 SAE Flat	4	151915
CC8	Nut, 1/4-20 Hex	4	151893
CC9	Switch, 15A/120V SPST Screw Terminal	1	156649
CC10	Terminal, 16-14 X #10 Stud Ring	2	154540
CC11	Terminal, 16-14 X 1/4 Stud Ring	1	156638
CC12	Terminal, 16-14 X .156 Male Bullet	1	152426
CC13	Connector, .156 Female Bullet Clamp-On Receptacle	1	152425
CC14	Wire, 14 GA Red Stranded	12”	156650
CC15	Clamp, 5/8 Hose	2	151198
CC16	Instruction Sheet, Water Pump Installation	1	158097-IS
DD	Assembly, Water Valve	1	153888
DD1	Fitting, Brass, 1/2 MNPT X Garden Hose Swivel	1	151322
DD2	Valve, Shut-Off, 1/2 FNPT X 1/2 FNPT	1	153796
DD3	Screw, 10-24 X 3/8 Phillips Head Self-Tapping Cap	2	151262
DD4	Elbow, 1/2 MNPT 90° Street, Galvanized	1	150844
DD5	Fitting, Brass, 1/2 MNPT X 3/8 BARB	1	153653
DD6	Clamp, 5/8 Hose	2	151198
DD7	Hose, 3/8 ID Vinyl	3’	150845

MK-2020 PARTS LIST

Parts List MK-2020

Item	Description	Qty	p/n
A	Accessories	-	-
A1	Tube, Owner's Manual	1	155419
A2	Owner's Manual, MK 20-Series	1	156777
A3	Wrench	1	137976
B	Belts	-	-
B1A	V-Belt, AX-33	2	150764
B2	V-Belt, AX-43	1	156110
C	Belt Guard	-	-
C1	Guard, MK 20-Series Belt	1	159888
C2	Screw, 3/8-16 X 1 Hex Head Cap	2	152507
C3	Screw, 3/8-16 X 3/4 Hex Head Cap	1	153527
C4	Washer, 3/8 Split Lock	3	150925
C5	Washer, 3/8 SAE Flat	3	150923
C6	Label, Caution, Sparkplug, 1.5 X 3.0	1	155579
C7	Label, Caution, Belt Tension, 1.5 X 3.0	1	155583
C8	Label, Caution, Guards in Place, 1.5 X 3.0	1	155587
C9	Pin, 1/4 X 3/4 Roll (not shown)	1	n/a
	Assembly, 20" Blade Guard, MK 20-Series	1	158818
D1A	Guard, Blade, 20" Rear, MK 20-Series	1	156781
D2A	Guard, Blade, 20" Front, MK 20-Series	1	154062
D3	Screw, 3/8-16 X 4 Hex Head Cap	1	153531
D4	Washer, 3/8 SAE Flat	2	150923
D5	Nut, 3/8-16 Centerlock Hex	1	153522
D6	Screw, 3/8-16 X 1 Hex Head Cap	4	152507
D7	Washer, 3/8 SAE Flat	4	150923
D8	Washer, 3/8 Split Lock	4	150925
D9	Fitting, Brass 1/8 MNPT X 3/8 BARB	1	152501
D10	Flap, Rubber Splash	1	150846
D11	Screw, 1/4-20 X 3/4 Hex Head Cap	2	152504
D12	Washer, 1/4 SAE Flat	4	151915
D13	Washer, 1/4 Split Lock	2	152591
D14	Nut, 1/4-20 Hex	2	151893
D15	Label, Caution, Lift Guard, 1.5 X 3.0	1	155586
D16	Label, Blade Failure Warning	1	155588
	Assembly, 1-3/16 X 20HP Blade Shaft	1	156654
E1	Shaft, 1-3/16 Dia. Blade	1	156599
E2	Bearing, 1 3/16 ID Pillow Block	2	155622
E3	Screw, 7/16-14 X 1 1/2 Hex Head Cap	4	155155
E4	Washer, 1/2 SAE Flat	4	150924
E5	Washer, 7/16 SAE Flat	4	151050
E6	Washer, 7/16 Split Lock	4	151051
E7	Flange, Inner, 1" Bore	2	150731
E8	Key, #9 Woodruff	2	150794
E9	Key, 1/4 Square X 1-3/4	1	150796
E10A	Pulley, 2A34B38TB1610	1	155010
E11A	Bushing, 1610 X 1 3/16 Taper Lock	1	155011
E12	Nut, Blade Shaft, 1-14 Left Hand (gold)	1	138701
E13	Nut, Blade Shaft, 1-14 Right Hand (silver)	1	138693
E14	Assembly, Outer Flange	1	155451
G	Console Tower	-	-
G1	Panel, Right Hand Tower	1	156500
G2	Panel, Left Hand Tower	1	156501
G3	Panel, Tower Upper Back	1	156504

Item	Description	Qty	p/n
G4	Panel, Tower Lower Back	1	156505
G5	Panel, Control	1	156305
G6	Screw, 3/8-16 X 3/4 Hex Head Cap	4	153527
G7	Washer, 3/8 Split Lock	4	150925
G8	Washer, 3/8 SAE Flat	4	150923
G9	Screw, 1/4-20 X 1/2 Truss Head Phillips Cap	18	153880
G11	Screw, 1/4-20 X 1 1/2 Hex Head Cap	1	151914
G12	Nut, 1/4-20 Hex	3	151893
G13	Label, Control Panel	1	156749
G14	Label, Water On/Off	1	154404
G15	Label, Engage	1	154405
G16	Label, Disengage	1	154406
G17	Label, Engine On-Off-Start	1	156601
G21	Plug, 3/4 Flush Head Button (not shown)	1	156615
G22	Plug, 1/2 Flush Head Button (not shown)	1	156779
H	Depth Control	-	-
H1	Wheel, Depth Control	1	155156
H2	Screw, 3/8-16 X 1/2 Socket Head Set	1	153710
H3	Handle, Depth Control Wheel	1	156236
H4	Handgrip	1	150842
H5	Screw, 1/2 X 3/4 Socket Head Shoulder	1	156177
H6	Tube, Depth Control	1	155049
	a) Fitting, Grease	1	153852
H7	Nut, 3/8-16 Nylock Hex	1	152505
H8	Screw, 3/8-16 X 2 Hex Head Cap	1	153485
H9	Bearing, 3/4 ID Flange	1	155151
H10	Screw, 3/8-16 X 1 Socket Head Cap	2	156602
H11	Spacer, Depth Control (not shown)	1	155161
H12	Nut, 3/4-10 Hex	2	155063
H13	Screw, Depth Control	1	155062
H14	Label, Clipper, 1.75 Round (not shown)	1	n/a
I	Depth Indicator	-	-
I1	Clamp, Depth Indicator	1	156603
I2	Screw, 5/16-18 X 1 Hex Head Cap	1	151743
I3	Washer, 5/16 SAE Flat	1	151754
I4	Arm, Depth Indicator	1	156604
I5	Screw, 1/4-20 X 1/2 Pan Head Phillips Cap	2	155452
I6	Washer, 1/4 Split Lock	2	152591
I7	Spring, Depth Indicator	1	156605
I8	Screw, 8-32 X 1/2 Pan Head Phillips Cap	1	152517
I9	Washer, #8 SAE Flat	2	155454
I10	Nut, 8-32 Hex	1	153549
I11	Spool, 2-3/4 Depth Indicator	1	156606
I12	1/4-20 X 2 ¼ Hex Head Cap	1	156607
I13	Nut, 1/4-20 Hex	1	151893
I14	Bracket, Depth Indicator	1	156608
I15	Screw, 1/4-20 X 1 Flat Head Phillips Cap (not shown)	1	153894
I16	Washer, 1/4 SAE Flat	1	151915
J	Depth Lock	-	-
J1	Spring, Detent	1	156609
J2	Washer, 3/8 SAE Flat	1	150923
J3	Screw, 3/8-16 X 2 Socket Head Cap	1	153643
J4	Nut, 3/8-16 Nylock Hex	1	152505
K	Engage/Disengage Lever	-	-

MK-2020 PARTS LIST (cont...)

Item	Description	Qty	p/n
K1	Lever, Engage / Disengage	1	156610
K2	Arm, Drive Adjustment	2	154242
K3	Knob, 1/2-20 Ball	1	154486
K4	Screw, 3/8-16 X 1 1/2 Hex Head Cap	1	153528
K5	Screw, 3/8-16 X 2 1/4 Hex Head Cap	1	153529
K6	Nut, 3/8-16 Nylock Hex	2	152505
K7	Screw, 3/8-16 X 3/4 Hex Head Cap	2	153527
K8	Washer, 3/8 Split Lock	2	150925
K9	Washer, 3/8 SAE Flat	6	150923
K10	Pin, 3/8 X 1 1/4 Clevis, w/ Hairpin Cotter Pin	1	156611
L	Engines	-	-
L1B	Engine, Honda GX620K1 20HP	1	158229
L2	Muffler, Honda GX620K1 20HP Engine	1	158567
L3	Tank, Fuel	1	156618
L4	Cap, Fuel Tank	1	156619
L5	Joint, Fuel Tank (not shown)	1	156620
L6	O-Ring, Fuel Tank Joint (not shown)	1	156621
L7	Hose, 5.5mm X 8m Fuel (not shown)	20”	156622
L10	Pulley, 3B34TB1210, Reverse Mount	1	155009
L11A	Bushing, 1210 X 1 1/8 ID Taper Lock, w/ Int. Key	1	154430
L12	Nut, 3/8-16 Nylock Hex	4	152505
L13	Washer, 3/8 SAE Flat	4	150923
L14	Screw, 3/8-16 X 2 Hex Head Cap	4	153485
L15	Pin, Throttle Control	1	151284
L16	Screw, 8-32 X 3/8 Pan Head Cap	1	156614
L17	Pin, Cotter, 1/16 X 3/4	1	152518
L18	Plug, 3/4 Flush Head Button	1	156615
L19	Label, Caution, Hot Surface, 1.5 X 3.0	1	155578
L20	Label, Warning, Refueling, 1.5 X 3.0	1	155580
L21	Label, Danger, California, 1.5 X 3.0 (not shown)	1	155581
L22	Label, Danger, Lethal Exhaust, 1.5 X 3.0	1	155582
L23	Panel, Front Tower, MK	1	156502
L23A	Panel, Front Tower, Rectifier Mount	1	156503
L24A	Oil Drain M14 X 3/8 Push	1	157577-03
L25	Bracket, Honda Fuel Tank (not shown)	1	158570
L26	Nut, M8 Flange Hex (not shown)	2	156624
L27	Screw, M8 X 16 mm Hex Head Cap (not shown)	2	156625
L28	Cable, Choke, with knob	1	158816
L29	Nut, 3/8-24 Hex Jam	1	156623
M	Frame	-	-
M1	Frame	1	157092
M2	Mount, Engine	1	154237
M3	Screw, 1/2-13 X 1 3/4 Hex Head Cap	2	153853
M4	Screw, 1/2-13 X 1 1/4 Hex Head Cap	2	153532
M5	Washer, 1/2 SAE Flat	4	150924
M6	Bolt, 1/2-13 X 3 Hex Head Tap	1	153854
M7	Label, Caution, Hands and Feet, 2 X 4	1	155585
M8	Tag, Serial Number MK-20 Series (not shown)	1	156919
O	Handlebar	-	-
O1	Handlebar	1	156516
O2	Handgrip	2	150842
O3	Bolt, 3/8-16 X 1 1/2 Hex Head Tap	2	156656
O4	Label, Warning, Handle Lifting, .625 X 2.937 (not shown)	1	156627

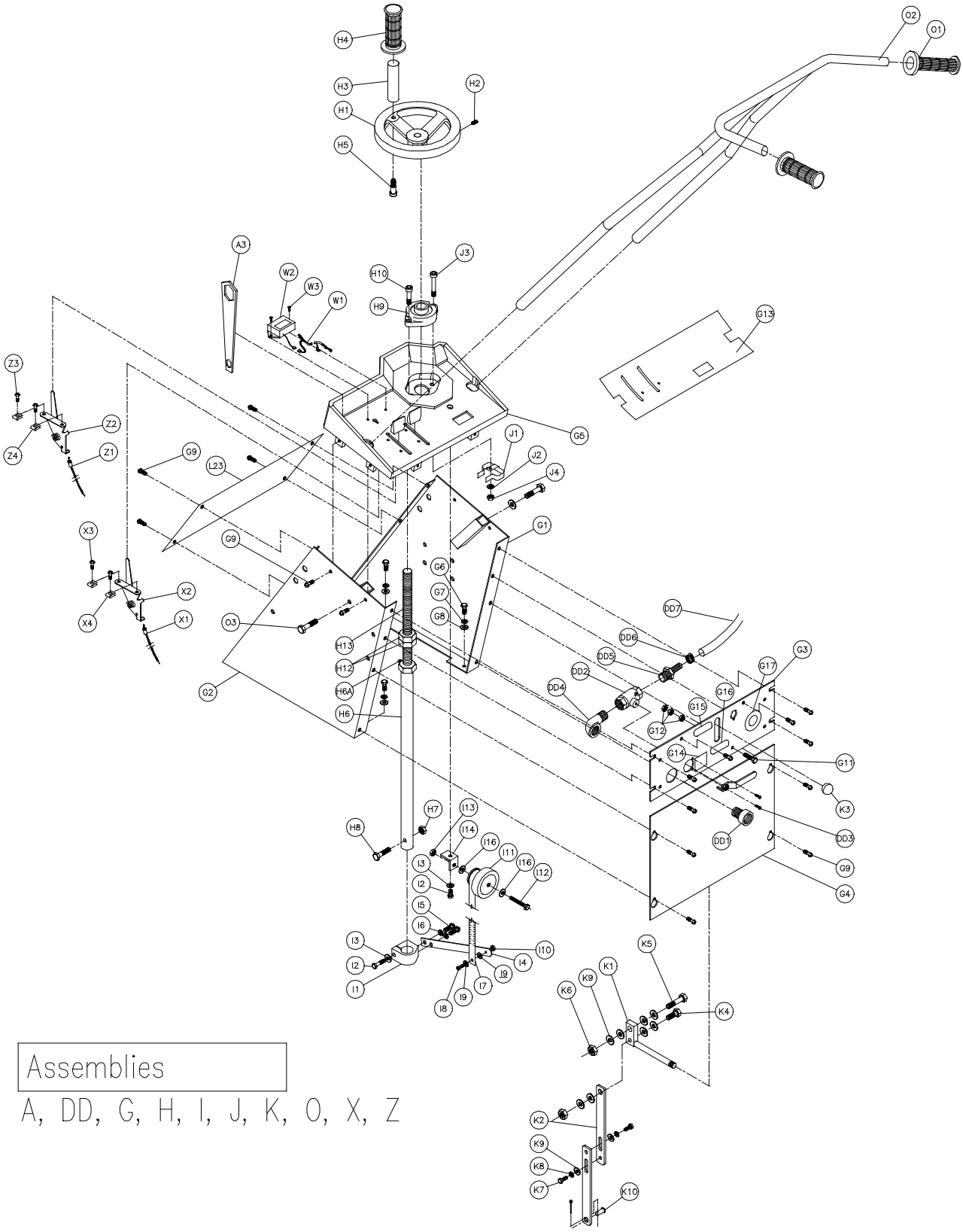
Item	Description	Qty	p/n
P	Idler Arm	-	-
P1	Arm, Idler	1	154244
P2	Screw, 3/8-16 X 2 Hex Head Cap	2	153485
P3	Spacer, 3/4 OD X 3/8 ID X 1/2	1	156628
P4	Washer, 3/8 Split Lock	1	150925
P5	Washer, 3/8 SAE Flat	3	150923
P6	Pulley, Idler	1	153797
P7	Spring, Idler Pulley	1	153807
P8	Eyebolt, 1/4-20 X 3	1	153887
P9	Nut, 1/4-20 Hex	2	151893
Q	Lifting Bail	-	-
Q1	Bail, Lifting	1	156543
Q2	Screw, 1/2-13 X 1 1/4 Hex Head Cap	4	153532
Q3	Washer, 1/2 Split Lock	4	153524
Q4	Washer, 1/2 SAE Flat	8	150924
Q5	Nut, 1/2-13 Hex	4	151282
R	Pointer	-	-
R1	Arm, Pointer	1	156544
R2	Pointer	1	155057
R3	Wheel, Pointer, w/ 3/8 X 1/2 X 5/8 nylon bushing	1	155066
R4	Screw, 1/4-20 X 3/4 Thumb	1	150991
R5	Nut, 3/8-16 Nylock Hex	3	152505
R6	Washer, 3/8 SAE Flat	6	150923
R7	Screw, 3/8-16 X 2 1/2 Hex Head Cap (not shown)	1	156030
R8	Screw, 3/8-16 X 1 1/2 Hex Head Cap	2	153528
U	Rear Axle	-	-
U1	Shaft, 3/4 Dia. Axle	1	153873
U2	Wheel, Rear, 6 Dia. X 2	2	138529
U3	Collar, 3/4 Set	2	153814
U4	Washer, 3/4 SAE Flat	4	153523
U5	Screw, 5/16-18 X 3/4 Hex Head Cap	2	151369
U6	Washer, 5/16 Split Lock	2	151747
U7	Washer, 3/8 SAE Flat	2	150923
V	Shaft Guard	-	-
V1	Guard, Shaft	1	156307
V2	Screw, 3/8-16 X 1 Hex Head Cap	3	152507
V3	Washer, 3/8 Split Lock	3	150925
V4	Washer, 3/8 SAE Flat	3	150923
V5	Label, Caution, Guards in Place, 1.5X3.0	1	155587
W	Tach / Wire Harnesses	-	-
W1B	Wire Harness, 20HP Honda K1	1	158684
W2A	Tach / Hourmeter	1	153877
W3	Screw, 8-32 X 1/2 Pan Head Phillips Self-Tapping Cap	2	156632
W4	Bracket, Battery	1	156634
W5	Screw, 3/8-16 X 3/4 Button Head Socket Cap	2	156635
W6	Washer, 3/8 SAE Flat	2	150923
W7	Nut, 3/8-16 Nylock Hex	2	152505
W8	Cable, 4ga X 48 Battery, Red with 5/16 Ring Terminals	1	153848
W9	Cable, 4ga X 24 Battery, Black with 5/16 Ring Terminals	1	153849
W10	Bolt, 5/16-18 X 1 Carriage	2	151698
W11	Washer, 5/16 SAE Flat	2	151754
W12	Nut, 5/16-18 Hex	2	101196
W13	Washer, 3/8 Split Lock (not shown)	1	150925

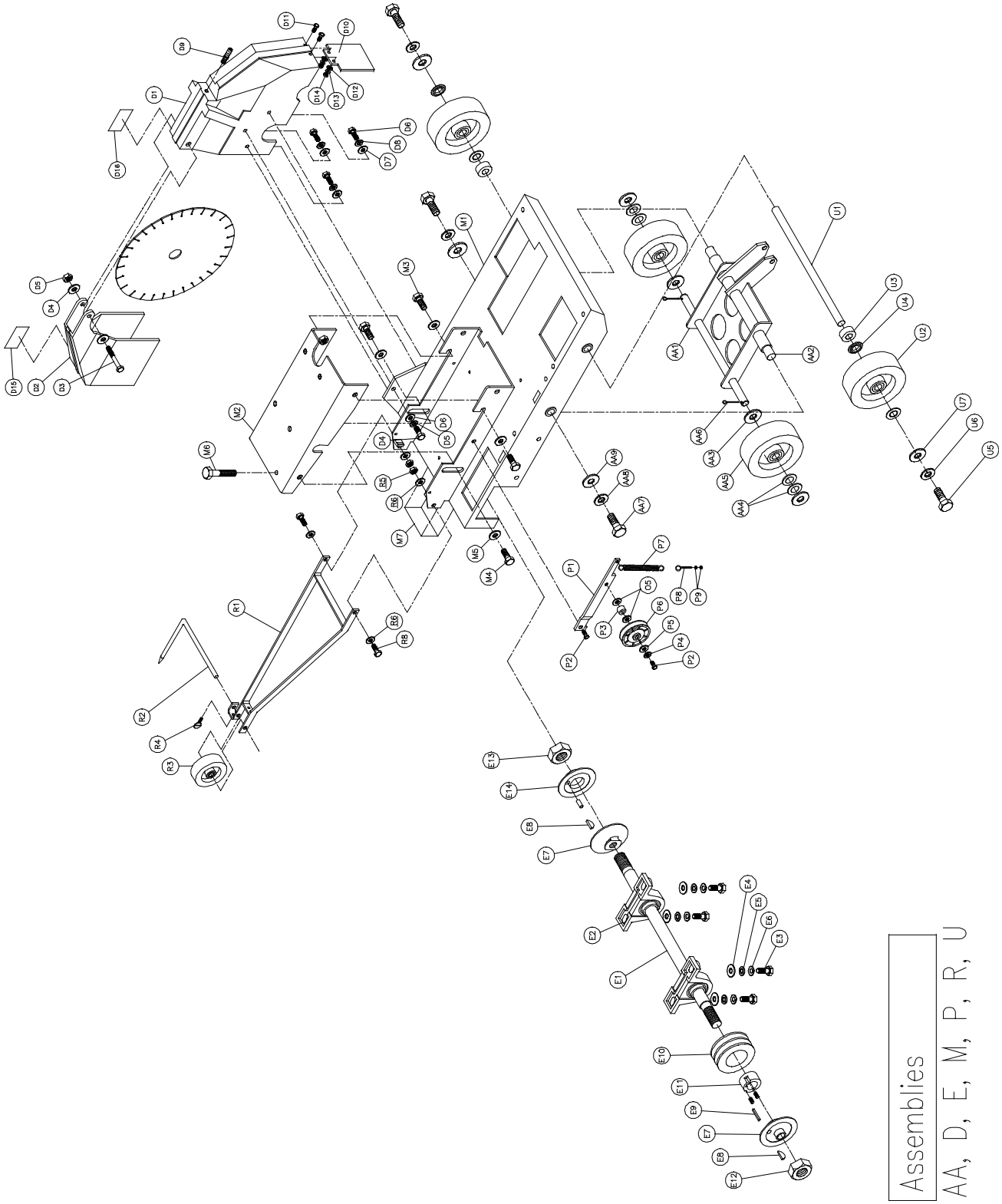
MK-2020 PARTS LIST (cont...)

Item	Description	Qty	p/n
W14	Clip, .62 Metal Cord (not shown)	2	158790
W16	Battery, 12 Volt 35 Amp-Hours	1	162589
W21	Insulator, Battery Terminal	1	162769
X	Throttle Cable	-	-
X1A	Cable, Throttle, 20HP Honda	1	158815
X2	Throttle Head	1	155406
X3	Screw, 10-24 X 3/4, Pan Head Phillips, Self Tapping	2	156641
X4	Nut, 10-24 Clip	2	155407
Y	Transmission	-	-
Y1	Mount, Transmission	1	154230
Y2	Bracket, Transmission Control Cable	1	153862
Y3	Lever, Transmission Control	1	154238
Y4	Sprocket, #35-B12 X 17mm Bore	1	153811
Y5	Nut, 3/8-16 Nylock Hex	9	152505
Y6	Washer, 3/8 SAE Flat	17	150923
Y7	Screw, 1/4-20 X 3/4 Hex Head Cap	2	152504
Y8	Washer, 1/4 Split Lock	2	152591
Y9	Washer, 1/4 SAE Flat	2	151915
Y10	Screw, 10-32 X 1/2 Pan Head Phillips Cap	1	151052
Y11	Washer, #10 Split Lock	1	153684
Y12	Washer, #10 SAE Flat	1	154369
Y13	Clamp, Transmission Control Cable	1	154383
Y14	Transmission, Hydrostatic	1	153783
Y15	Screw, 3/8-16 X 3 Hex Head Cap	4	153113
Y16	Pulley, 1-Groove, 6” Dia X 17mm Bore	1	156642
Y17	Screw, 10-24 X 1/2 Hex Head Cap	1	154172
Y18	Pin, Transmission Control	1	153842
Y19	Pin, 3/32 X 1 Cotter	1	153860
Y20	Shaft, Drive Wheel	1	153891
Y21	Roller Chain and Link	1	156309
Y22	Key, 3/16 X 3/16 x 1 1/8 Square	3	150344
Y23	Sprocket, #35BS48 X 3/4 Bore	1	153812
Y24	Bearing, Flange	2	152025
Y25	Fitting, Grease	2	153852
Y26	Screw, 3/8-16 X 1 1/4 Hex Head Cap	4	150774
Y27	Wheel, Splined Drive	2	153786
Y28	Screw, 1/2-13 X 1 1/4 Hex Head Cap	2	153532
Y29	Washer, 1/2 SAE Flat	2	150924
Y30	Spring, Extension	1	153957
Z	Transmission Control Cable	-	-
Z1	Cable, Transmission Control	1	156643
Z2	Throttle Head	1	155406
Z3	Screw, 10-24 X 3/4 Pan Head Phillips, Self Tapping	2	156641
Z4	Nut, 10-24 Clip	2	155407
AA	Truck	-	-
AA1	Truck	1	154231
AA2	Shaft, 3/4 Dia. Pivot	1	153873
AA3	Washer, 3/4 SAE Flat	4	153523
AA4	Washer, 3/4 Shim	~4	153699
AA5	Wheel, Front, 5 Dia. X 2	2	138537
AA6	Pin, 1/8 X 1 1/2 Cotter	2	153861
AA7	Screw, 5/16-18 X 3/4 Hex Head Cap	2	151369
AA8	Washer, 5/16 Split Lock	2	151747
AA9	Washer, 3/8 SAE Flat	2	150923

Item	Description	Qty	p/n
BB	Assembly, Water Tank	1	157852
BB1	Tank, Water	1	156644
BB2	Cap	1	156956
BB3	Valve, 3/8 MNPT x 3/8 FNPT Mini Ball	1	157898
BB4	Elbow, 3/8NPT Nylon Street	1	157895
BB5	Coupling, Quick Disconnect Socket X. 3/8 Tube	1	158079
BB6	Coupling, Quick Disconnect Plug X 3/8 Tube	1	158080
BB7	Tee, 3/8 Hose Barb, Brass	1	156646
BB8	Hose, 3/8 I.D. Vinyl	3’	150845
BB9	Clamp, 5/8 Hose	4	151198
BB10	Slider, Water Tank Strap	2	158095
BB11	Strap, Water Tank	1	158094
BB12	Instruction Sheet, Water Tank Installation (not shown)	1	157852-IS
CC	Assembly, Water Pump	1	158097
CC1	Pump, Electric Self Priming Centrifugal, 12V	1	156647
CC2	Fitting, 3/8 MNPT X 3/8 BARB, Brass	2	152076
CC3	Elbow, 3/8 MNPT 90 Street, Galvanized	1	152074
CC4	Fitting, 3/4 MNPT X 3/8 FNPT, Brass	2	156648
CC5	Screw, 1/4-20 X 1/2 Hex Head Cap	4	152608
CC6	Washer, 1/4 Split Lock	4	152591
CC7	Washer, 1/4 SAE Flat	4	151915
CC8	Nut, 1/4-20 Hex	4	151893
CC9	Switch, 15A/120V SPST Screw Terminal	1	156649
CC10	Terminal, 16-14 X #10 Stud Ring	2	154540
CC11	Terminal, 16-14 X 1/4 Stud Ring	1	156638
CC12	Terminal, 16-14 X .156 Male Bullet	1	152426
CC13	Connector, .156 Female Bullet Clamp-On Receptacle	1	152425
CC14	Wire, 14 GA Red Stranded	12”	156650
CC15	Clamp, 5/8 Hose	2	151198
CC16	Instruction Sheet, Water Pump Installation	1	158097-IS
DD	Assembly, Water Valve	1	153888
DD1	Fitting, Brass, 1/2 MNPT X Garden Hose Swivel	1	151322
DD2	Valve, Shut-Off, 1/2 FNPT X 1/2 FNPT	1	153796
DD3	Screw, 10-24 X 3/8 Phillips Head Self-Tapping Cap	2	151262
DD4	Elbow, 1/2 MNPT 90° Street, Galvanized	1	150844
DD5	Fitting, Brass, 1/2 MNPT X 3/8 BARB	1	153653
DD6	Clamp, 5/8 Hose	2	151198
DD7	Hose, 3/8 ID Vinyl	3’	150845

Exploded Views for MK-2013

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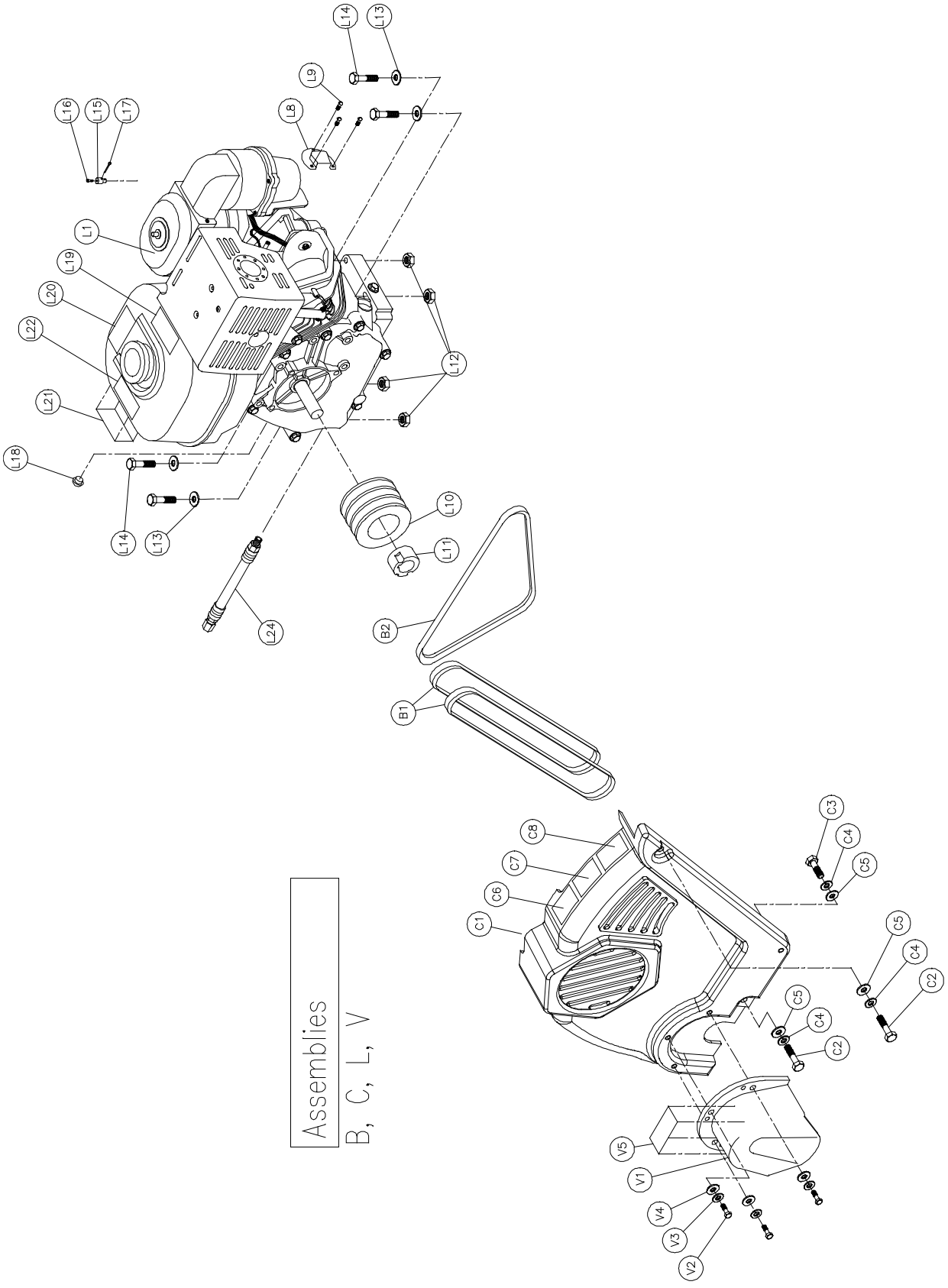
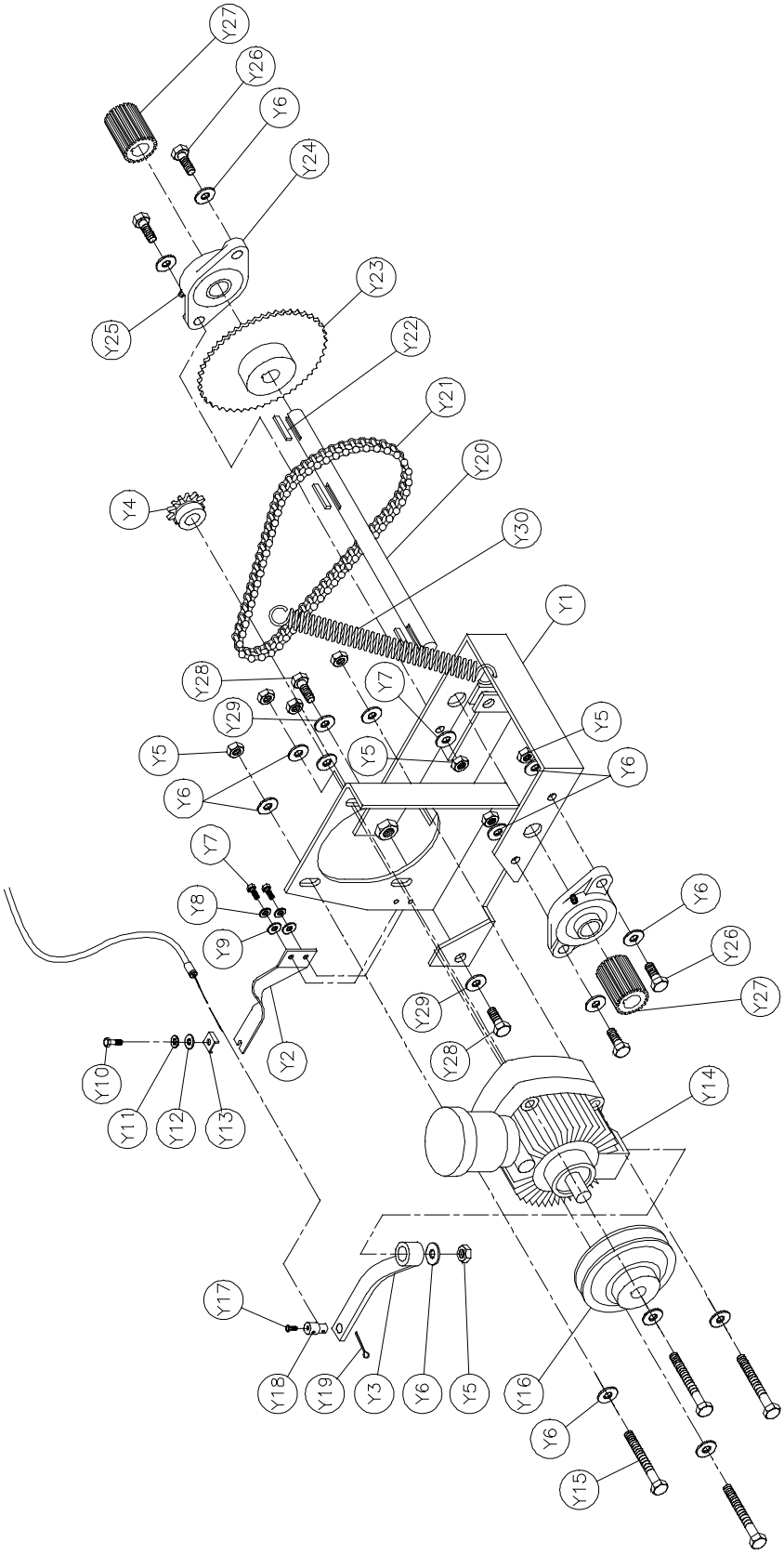
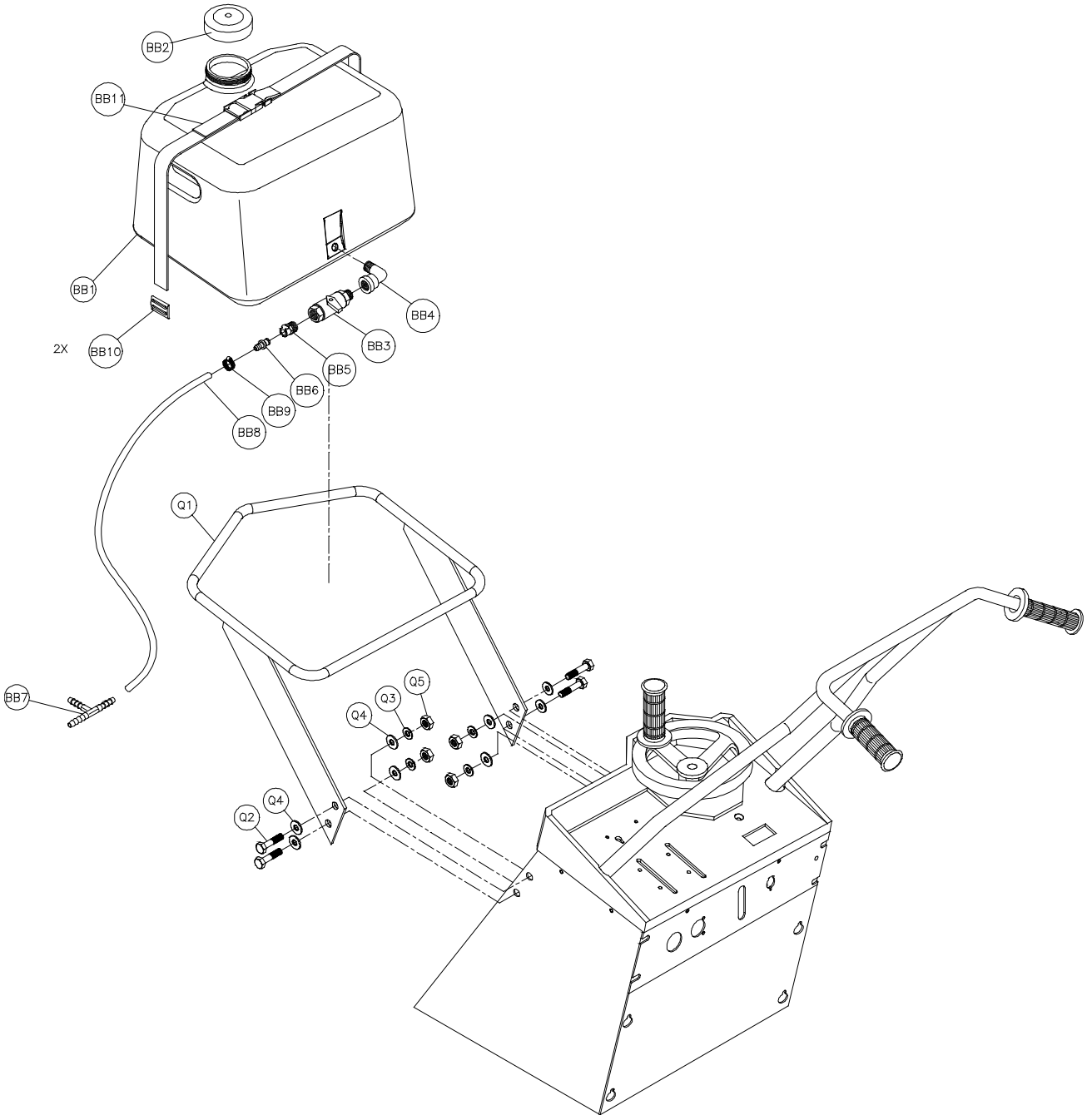
MK-2013 EXPLODED VIEWS (cont...)





Assemblies
Y

Assemblies
BB, Q



Assemblies

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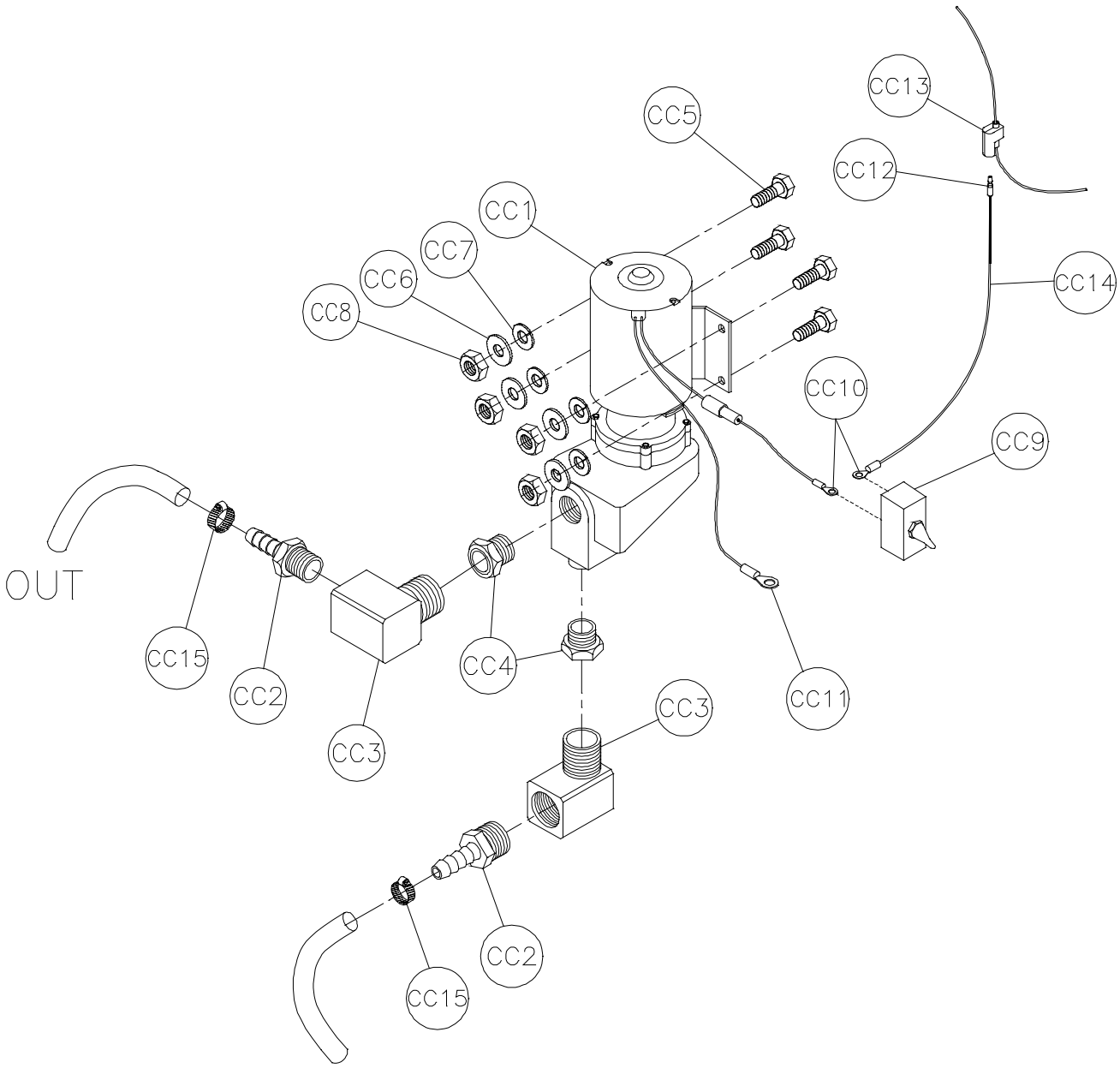
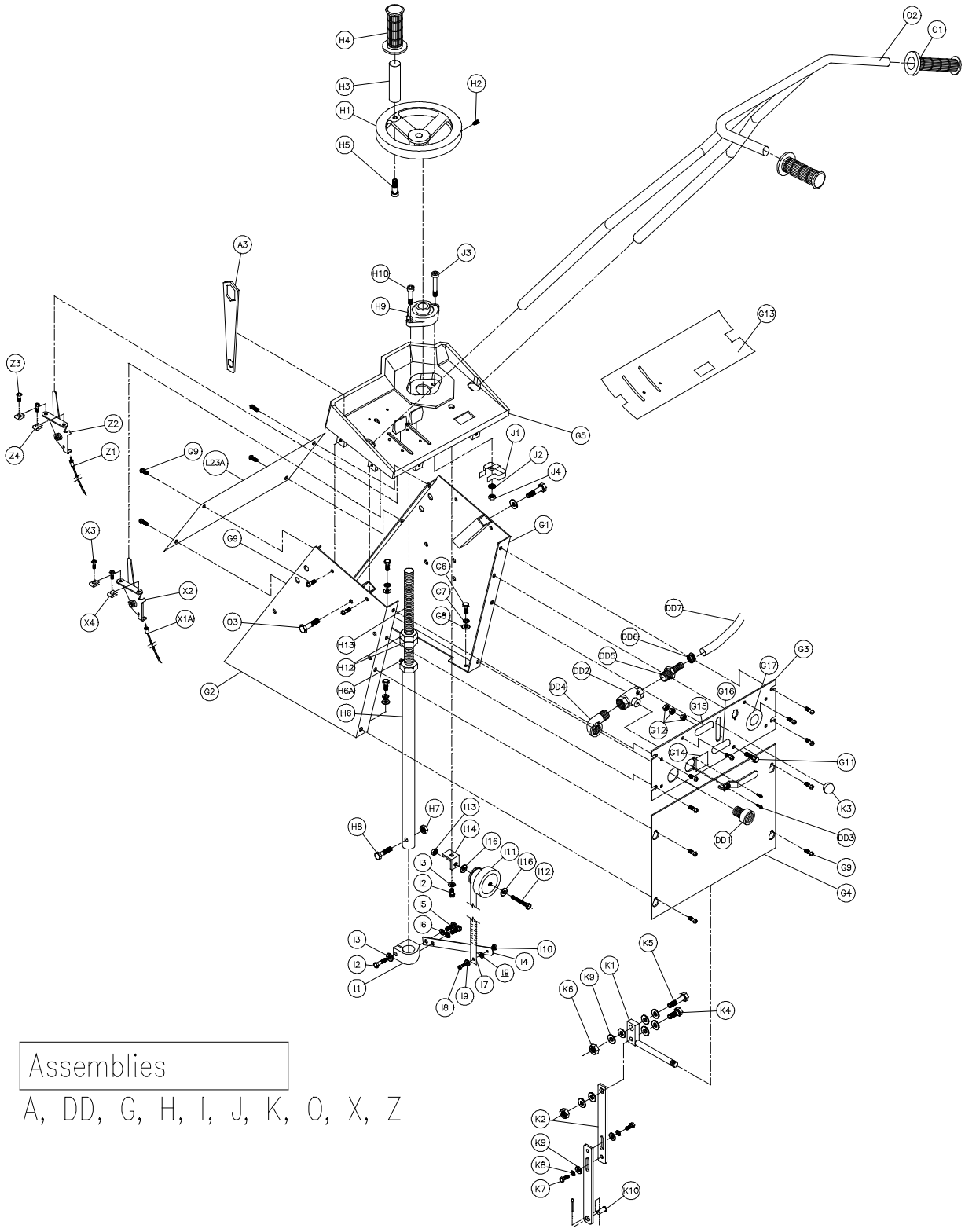
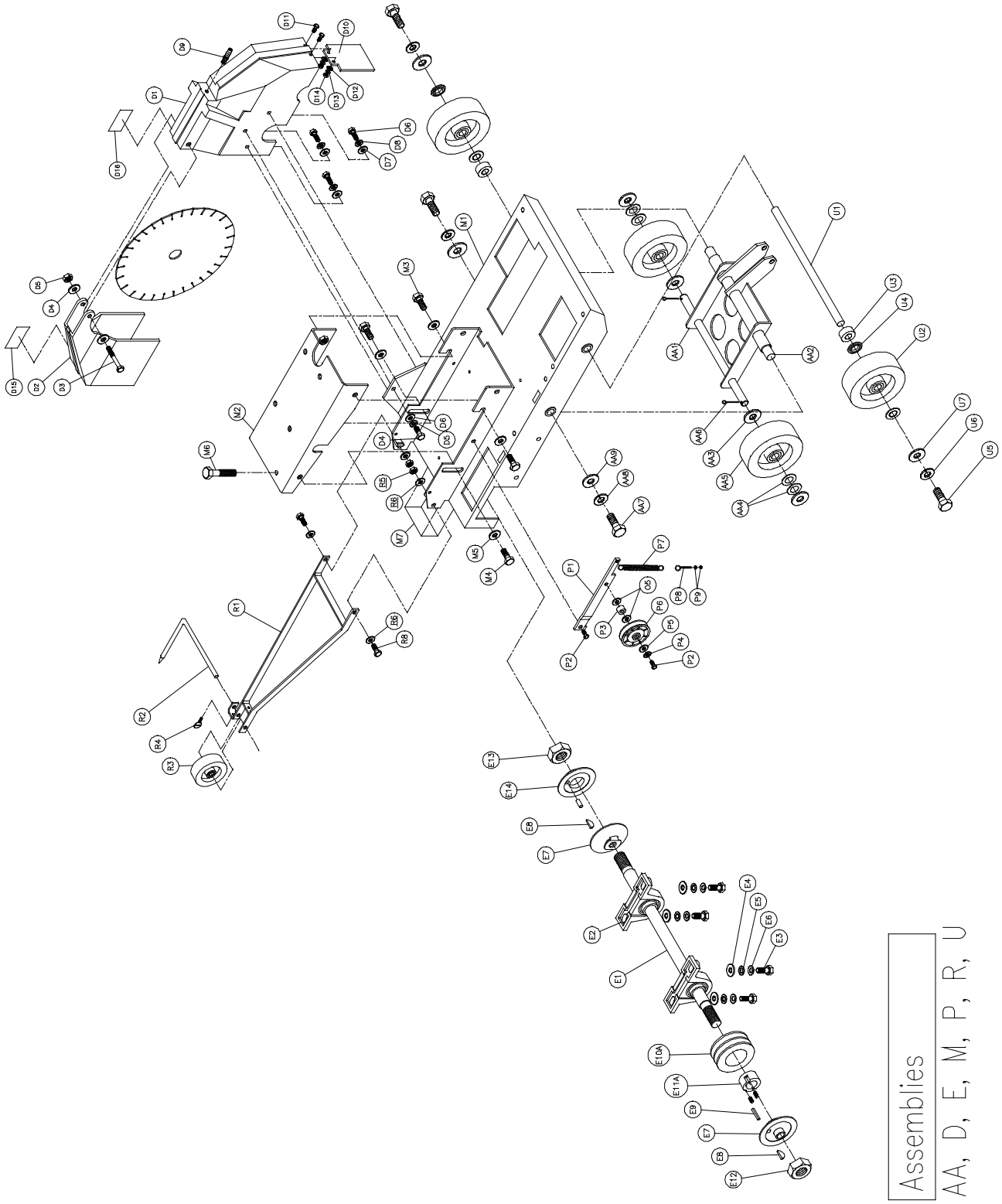


Exploded Views for MK-2020

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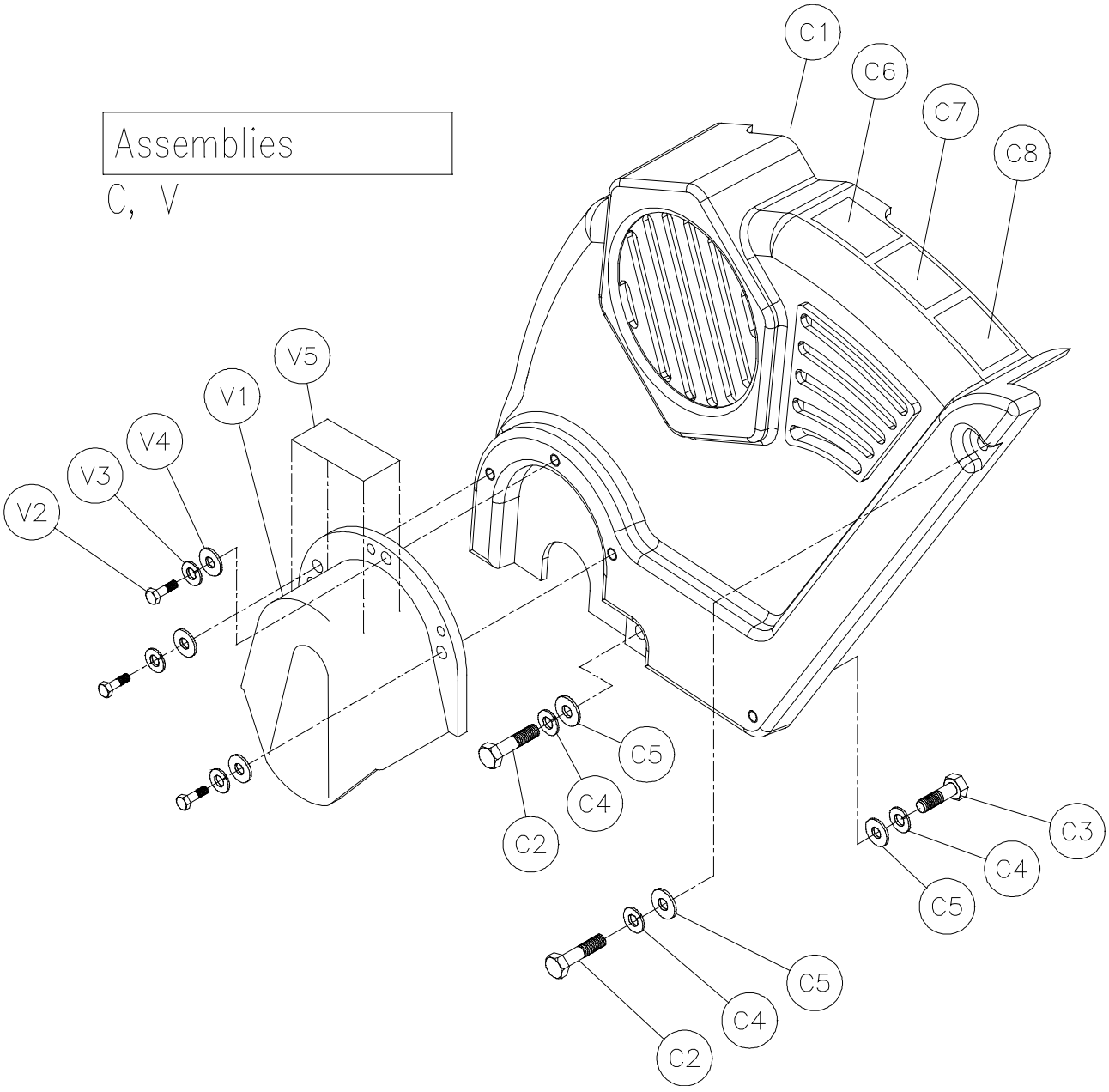
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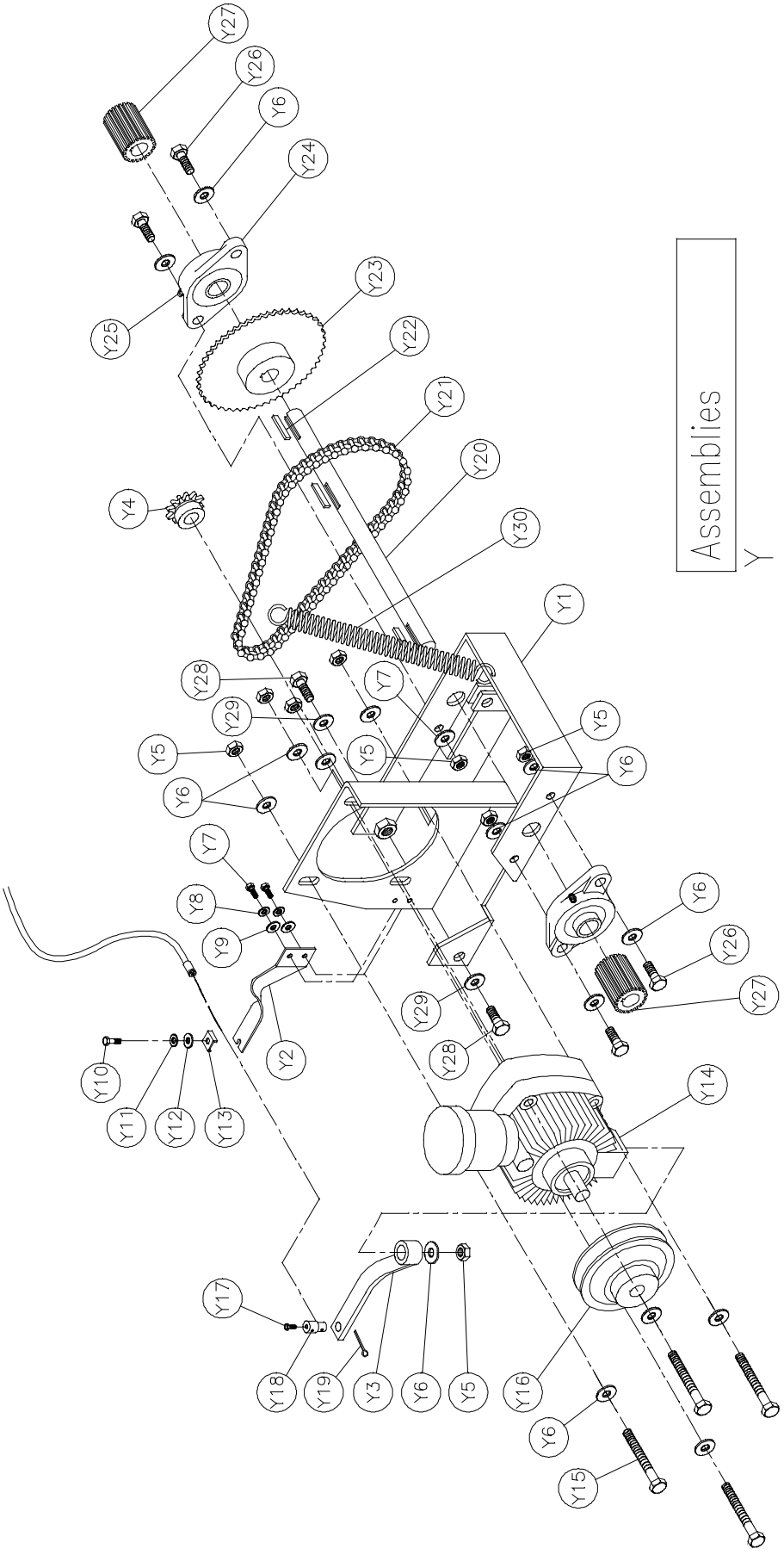
C4
C2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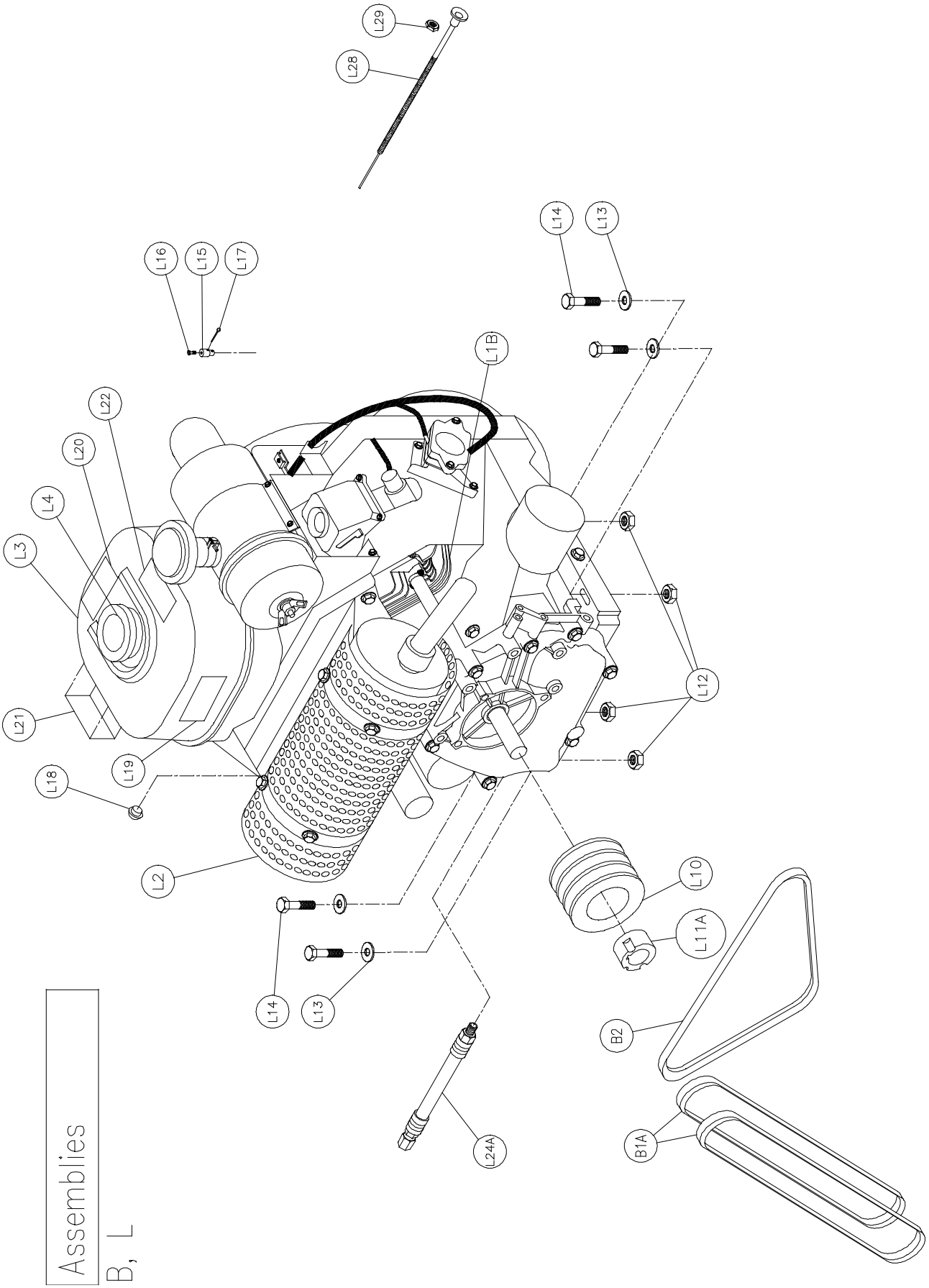
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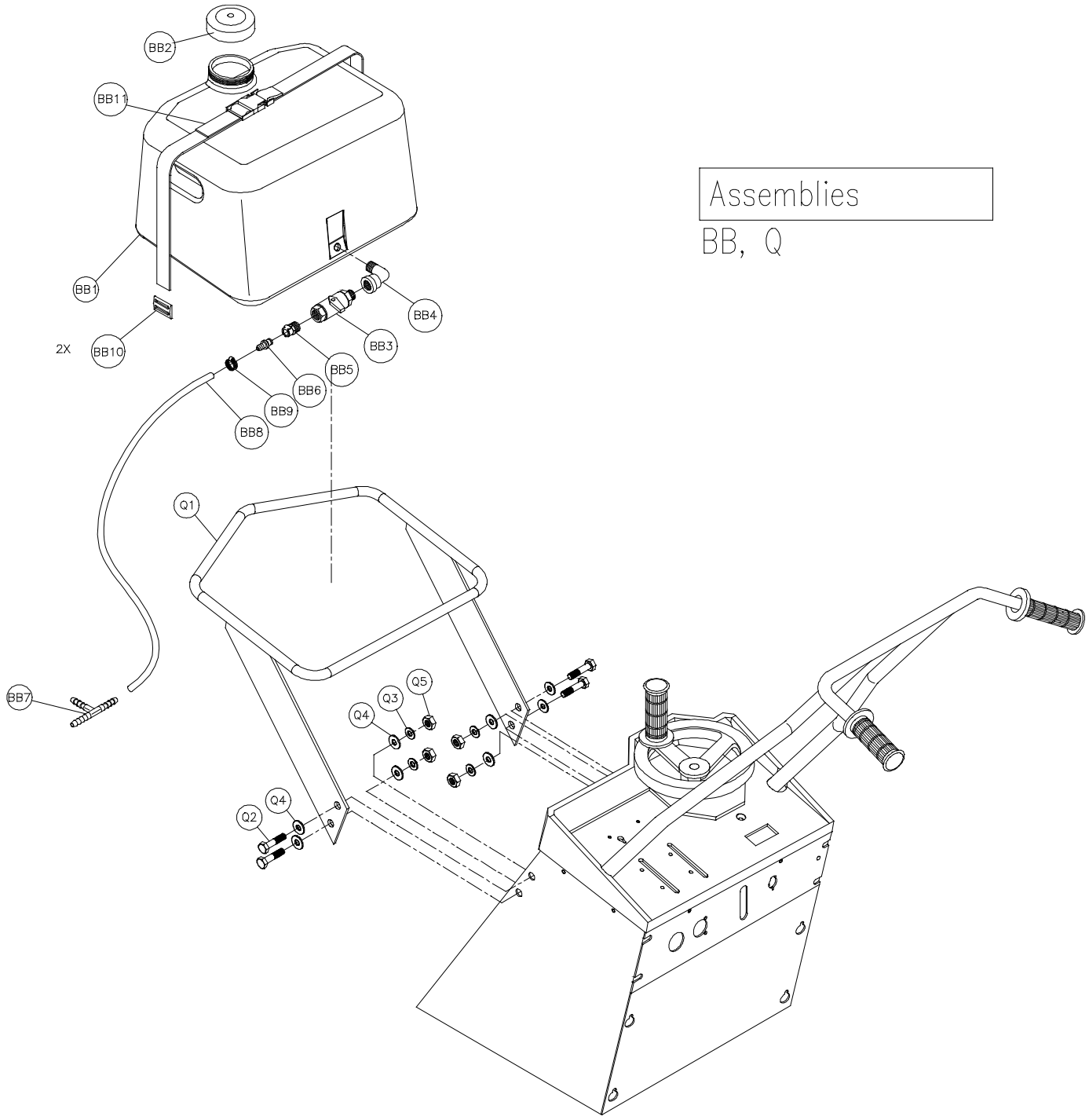
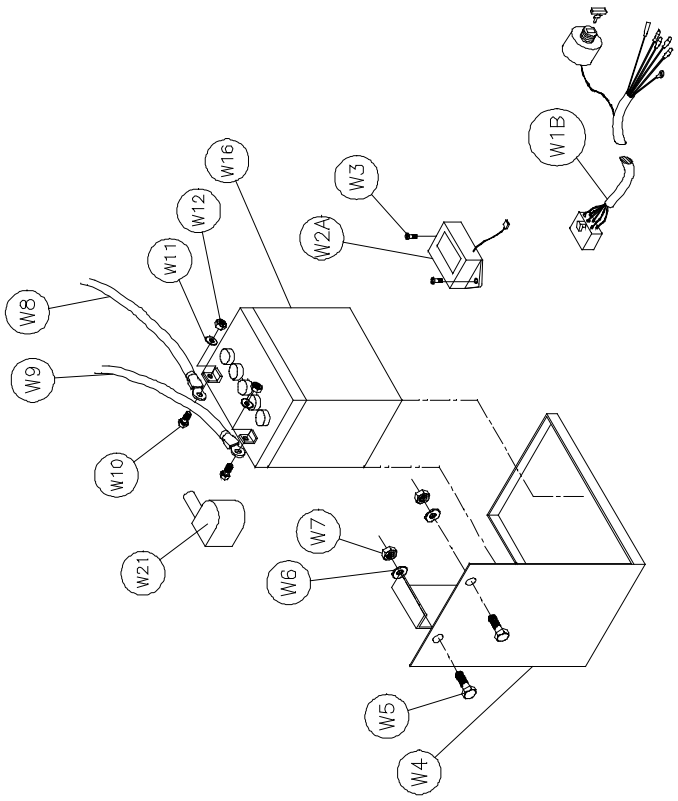
Assemblies
B, L

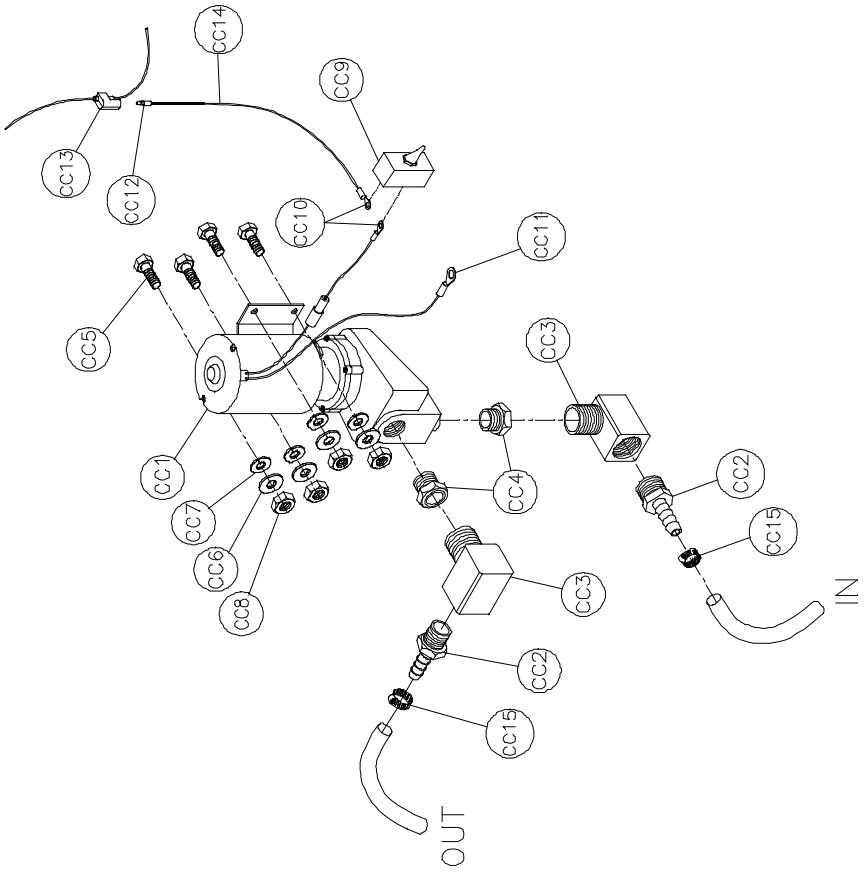


Assemblies

BB, Q



Assemblies
CC, W



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Model MK 20 Series
Owner's Manual
Parts List &
Operating
Instructions

How to order repair parts

please have the following
information ready before calling:

- serial number of your saw
- model number of saw
- where purchased and when
- part number
- part description

all parts listed may be ordered from your local distributor or from mk diamond. If the part is not stocked locally, call our toll free number listed below and ask for our customer service department. For technical support call: 1 (800) 474-5594 or 1 (310) 257-2845.

Returned merchandise policy

Should you need to return any product you have purchased from MK Diamond, please observe the following:

Our customer service department should be contacted for approval to return merchandise. Merchandise will not be accepted without a RETURNED GOODS authorization number. All returned merchandise must be shipped prepaid to destination. All returned merchandise must have been purchased within the previous 12 months. A restocking charge of 15% may be billed.

MK Diamond Products, Inc.
1315 Storm Parkway. Torrance, CA 90509-2803
1 (800) 421-5830 FAX 1 (310) 539-5158

Part No. 156777
Revision 09/06